SCARBROUGHS
Spagyrical Anatomizer dissected.

OR AN

ANSWER

To all that Dr. *Tonstal* hath Objected in his Book against *Scarbrough Spaw*.

The *Innocency* and *Excellency* of that Spaw is further asserted

1. Concerning the Rise and Growth of the *Art of Physick*,
2. Touching the Causes of the *Petrifying Property* that is in some Springs, and more especially that of the Dropping Well at *Knaresbrough*.
3. About the Signs, Symptomes and Cures of Diseases.

As also Reflections upon a late Piece, called a Vindication of Hydrologia Chymica.

By *Robert Wittie* Doctor in Physick.

London. Printed by *B. G.* for *Nath. Brooke* at the Angel in Cornhil and *R. Lambert* at Minister-Gate in *York*, Anno Dom. 1672.

For Richard Darley Esq
from
His humble Servant
R. Wittie

To the Right Honourable JAMES Earl of Suffolk, JOHN Lord Roos, *Son and Heir to the* Earl of Rutland, *and* JAMES Lord Anneſley, *Son and Heir to the* Earl of Angleſey.

My Lords,

I *Am once more ingaged to appear again in Publick, in defence of* Scarbrough Spaw, *which is now accuſed to be a dangerous Water; and what fitter* Judges *of this Controverſie can be found out then your* Lordſhips, *who have tried it, and found it not only moſt* Innocent, *but* Excellent. *My ultimate and higheſt Appeal is therefore to your* Honours, *ſince two of your* Lordſhips *do bear its Teſtimony within you.*

As for you my Lord Anneſley, *though I cannot ſay this laſt of your* Lordſhip, *ſince you did not drink of it out of any neceſſity, but for company of your* Noble Brother *the laſt Summer: yet this I may ſay, your* Lordſhip

had an ill ſhare of it, if it have the faults that ſome have aſcribed to it. And further, your Acute Judgment *and* Excellent Learning *wherewith you are qualified for the* Higheſt Service *of your* Prince *and* Country *when called, renders your* Lordſhip *a moſt competent* Judge *of this Subject, beyond all Impoſition. And the Favourable Aſpect which then both your* Lordſhips *were pleaſed to* Grace *this Diſcourſe and its Author withal, do juſtly challenge this my* Thankful *and* Publick Acknowledgment. *I humbly beg of* all your Lordſhips *the Acceptance of this, in token of the great* Service *and* Honour *I owe you, for all your* Noble Favours *vouchſafed to*

My Lords,

York
June 3.
1671.

Your Lordſhips *moſt humble Servant*

R. WITTIE.

To

To the Reader.

METhink I hear ſome object that my Anſwer to this Book comes too late, ſo as I might have ſpared my ſelf this labour, a return being laſt Summer made thereto, in a piece called *A Vindication of Hydrologia Chymica.* To which I reply, *Sat cito ſi bene ſat*, it is ſoon enough if it be well enough. This was finiſhed in *June* laſt, as ſome *Perſons of Honour* do know, before that came out, but was thought fit to be ſuppreſt 'till the year came about, when the Waters here treated of might become the common ſubject of diſcourſe. And further I ſhall ſay, if my Anſwer be but like that, then have I loſt my labour, and thou thy money, for in the judgement of learn-

ed men, it will (with that) deserve nothing but to be imployed in the most *homely uses*.

That Author is scarce satisfied with any thing that this sayes, save only where he opposes and girds at me. What the one calls the *Globe of Alome*, the other calls the *Maizera of Iron*. The one calls the Salt of Alome an *Alkali*, the other an *Acid Salt*. The one affirms an Acidity to be in Nitre, the other denies it; nor do their reasons convince each other. Thus it appears they do not well understand the Terms of the Art they profess; and truly when men run carcers in the dark, its no wonder to have them justle. And though they differ, yet its pretty sport to see how they claw one another with the frequent Title of *Ingenious Friend*, while yet I am not allowed to dissent, be my reasons never so cogent, but I am called out of my *name* by the young

man with unſcholar-like reproaches, and new invented ſtories, that have not the leaſt pretence of truth in them.

The great fault they find in *Scarb. Spaw*, and which they reckon to be its diſparagement, is the great quantity of Mineral ſediment that remains after evaporation over the fire. I declare I never ſaw harm come from thence. The only fault I know in that Spring, is that it is placed in an angle of the Kingdom, at ſo great diſtance from *London*, and the midland Counties, where if providence had ordered it, being found to have the vertues both of *Epſam* and *Tunbridge*, it would have been more known, and better truſted then now it is.

Now though like *Sampſon's foxes* they turn tails of one another, yet they agree in this, to fire their neighbors Corn, and cauſeleſly to diſparage the Spring, revenging

their Schism upon themselves by separating from one another, as they do both from the truth. And though Mr. *S.* can hardly close with Dr. *T. S.* arguments against the Spaw, yet out of design he supposes somewhat of it may be true, on purpose to make room for himself, and so undertakes to give rules of advice to those that come there; where he says no more then what may suite such subjects in general, but wisely refers the Patients to advise with those that understand their cases better. At last he proves most ingenious, and calls it a *noble Spaw*, wherewith he would improve other Spaws, even that at *Knaresbrough*, (p. 152.) *by dissolving the Salts of Scarbrough water to make it more effectual.* Why could not he say so before? —— but however *Nunquam sera est, &c.* And 'tis honestly said; let the minerals be what and how many they will;

will: of which more anon. My reply is this in a word; *Quod efficit tale, illud est magis tale.*

But I may not pass that ὁ ἐχθρός of mine, the Author of the *Vindication of Hydrol. Chymica*, and his Book without a further survey. That *Hydrol. Chymic.* is little else then a *Rapsody of Railing* first against me, about my Book of the Spaw, and then against the *Galenists* and their *Method*. To that Book I gave Answer, justifying what I had writ about the Principles of the Spaw, and at last after a great deal of bad language that he had given me for ~~asserting~~ them, I found him *recanting* asserting in his Epilogue, and confessing them all. I also maintained the Honour and Reputation of those worthy Gentlemen the *Galenists*, and their *method of Physick*, (who deserve a better Champion) both from *Reason*, and also the *Authority* of the most eminent among the

Chy-

Chymists, who all go that way. Nor has that Discourse been unwelcome to the Nation, but I have had thanks from many *private Gentlemen*, both of our own Faculty and others, yea and from some *publick Societies* of Learned men. Now when I had so fully discovered his errors to him, an ingenious man would rather have repented and cried *peccavi*, then writ a *Vindication*: what faults he made there, he has aggravated in this with more grosse circumstances.

He charges my quotations of Authors to be impertinent, or their sense to be perverted, or their words falsly translated.—— This I expected he would say, if any thing, for he has front enough to deny the conclusion, where he cannot stand against the premises. The truth is, I was very careful in my collections of Authority, fetching every thing from the *fountains* and not from the *streams*,

dreams, even from the original Authors themselves, whose very pages in things most material I usually cited, on purpose to stop his clamour. Nor have I designedly wrested in any one place the sense of any one Author. Nor have I falsly translated a word, or added a tittle more then what was necessary to preserve the idiome of each language, or make the sense intelligible to common Readers. I appeal to the Learned who have read my Book, who are most competent Judges betwixt us.

Nor is it material what he objects to the contrary (*p.* 41.) where I citing a place out of *Paracelsus* concerning Minerals and Mettals imbibed in water, he says I added by a Parenthesis (*dissolved in water*) I therefore did put them into a *Parenthesis*, because they are not expressed in the Latin among those words, but they are so necessarily im-

implied, as the Authors ſenſe would be loſt if I had not expreſſed them; and the following words do plainly make it out, *viz. Hæc enim aqua ſunt, &c.* (lib. 4. cap. 1. *de treſcentibus Aquis* p. 271.

So again in the ſame page where I cite *Paracelſus* ſpeaking of vitriol, *(id ſi in Aquam reſolvatur colorem omnem deponit)* he quarrels at the tranſlation of the word *(in)* which ſhould be *(into)* and impoſes ſeverely upon me for it —— Whether it was omitted in my Copy or by the Printer, it matters not among Men of Reaſon, ſince there can be nothing gained by it: but certainly its not ſo *pedantick* as *puerile*, and argues a deſperate ſhipwrack of his Cauſe, while he has no better Anchor-hold to ſtick by, then the defect of an inſignificant Particle.

He tells a ſtory in his Preface, which for futeneſs of memory he re-

repeats again in his Book, that *in a debate about the Exiſtence of Vitriol in the Spaw, I was put to ſuch a ſtrait to defend it, that after ſome paſſion of fear, diſcovered by a ſudden paleneſs in my face, I had no other refuge but to fly to the* ipſe dixit *of Dr.* Tonſtal, *and ſaid he told me it was Vitriol laſt year.* Will any man of reaſon believe that he whom I ſo lately laſhed ~~about~~ in my Book, and that among others about this very thing, and catched him in nineteen contradictions, beſides other abſurdities, ſhould on the ſudden become ſo formidable to me, while yet he urged nothing but what I had anſwered in my Book? And yet hence he indeavours to perſwade, that I had publiſhed nothing concerning that Mineral, but what I had borrowed from Dr. *T.* Concerning that debate I could ſay ſomething from the teſtimony of the Gentlemen then preſent, of their

their diſreliſh of his arguments and behavior, inſomuch as ſome of them hiſſed at him. But I ſhall only offer this at preſent, that I have been acquainted with that Spaw above thirty years, and am known to many to have always aſſerted Vitriol, upon the Reaſons mentioned in my Books. And in Anno 1660. my firſt Edition of *Scarb. Spaw* came out, with my reaſons for that mineral among the reſt, which is now eleven years. Now Dr. *Tonſtal* I think never ſaw this Spring till the year 1668. when he came to me, and confeſſed himſelf a ſtranger to it, asking my advice about his Wife; then did I convince him of all the mineral's in the Spring, ſo as he was ſatisfied abundantly at that time, which gave me occaſion to mention his name in my Anſwer to *Hyd. Chym. p.* 107. So as in that debate I asked him the queſtion, what ſay you to this, in

Anno

Anno 1669. But then his mind was changed, and the *Vitriol* was become *Nitre*, querying also whether the Spaw were better if it had Vitriol or no; which I told him was a new subject, and required longer debate. Now what ground there is for this his charge, that my appeal should be to him, as having that notion from him, let any man of reason judge, and thereby take measure of the temper of this man, and consequently of his cause which needs such supports. I am certain I shall find Dr. *Tonstal* just towards me in this point, if any man shall enquire of him.

But he forges another figment arising from my fear of him about the Vitriol, when the *Chymical Apothecary* taking a piece of Alome-stone out of the vitrioline bed that is in the cliff, and putting it into water with gall, found it strike a black tincture, inferring thence that

the

the Tincture in the Water was from the Alome, and that there was no Vitriol. I answered, so would the earth in that place give a tincture, but neither earth nor the 100. loads of Alome that are in that cliff elsewhere would do it; here they clamoured extreamly, but upon that he sayes, *that I was so touched to the quick, that I called the Apothecary aside, and said, if Mr.* Simpson *would lay down the cudgels, I would not only look upon him as a Brother, but also when occasion should offer, would sooner take him into consultation then any other.* —— Really such a thing was never in my heart, nor did I in my judgement think him equal with the meanest of all the Brethren of our Faculty in these parts, as to the practical part of Physick, though by this Artifice I guess his design is to level them all. But the ground of the story is this.

This

This Apothecary after my Book in Answer to Mr. *S.* was come out, came to me at *Scarbrough*, and told me he had read my Book; &c. and had made that Errand to me to Endeavor a Reconciliation betwixt us, desiring earnestly, that we might be in Charity, and joyn hand in hand, as there should be occasion. —— I told him I had said what I intended, and my Vitriol and Gall were spent in those lines, and if he were so satisfyed, and did desire it, I could embrace him in all *Christian* Charitie even as a Brother (following that rule of our *Saviour Mat.* 18. 22. and farther that I would not refuse to joyn with him, if we were consulted together, as with any other. Thus I thought my self on that occasion obliged to say, and repeat as often as he urged the motion: But to wrest that my readiness to comply in a *Christian* duty into a *Pusillanimos* dastardy is both *unchristian* and *unreasonable*.

Are not these dangerous men that I have to deal withall, from whom a man shall find nothing short of the lie cast in his face? I say again, there is no plainer signe of a desperate Cause, then when men seek out such a refuge.

But he sayes I supplyed my defect of Arguments with Taunts and Scoffs at him. —As for my Arguments, he is not fit to be a *Judge* of them; they lye at the mercy of the *judicious Reader* to whom I submit all, for I am as little apt to defend my own defects, as to search out those of others. —I must confess I did think slightly of that Adversary, from whom I had received such rude language without a cause, and therefore I thought fit to go merily on with him, both for my own recreation and the Readers, having a minde as tis said of the Poets, *aut prodesse aut delectare*, as the matter did lead me. Nor have I spoken to any mans disadvantage out of the least design or animosity,

nosity, and therefore though possibly I need the Readers pardon, yet I expect none from him. But if my Passions went hand in hand with the interest of Truth which I design to maintain and stand by, I hope that will plead for me, and procure me a pardon from all that are ingenuous, and profess themselves Lovers of Truth.

There are many more ridiculous gibs against me in that Book called *Vindication*, &c. not worthy to be mentioned, which the wise Reader will discern to be sufficiently scurrilous.

But to proceed. What have we in that Book, to *Vindicate* his abuse and contempt of *Galen*, *Hippocrates*, *Dioscorides*, and all the Learned in Phisick, and our Modern Writers too, with their method, which I have defended, (p. 205.) against his manifold Calumnies? But what aggravates his crime, he persists in the same, and after reproof, yet hardens his heart; unless

we shall believe that *Catilines* latter Conspiracy were sufficient to *vindicate* his former; or that Crimes are *justified* by Majoration.

How does he *Vindicate* himself from that shameful guilt of deriding those of our Faculty that travaile beyond Sea to study in *Forreign Universities*, and his *Scurrilous* gibing at those *Learned Professors* about their Readings to the young Students, whom he severely taxes with ignorance at their return. (*p.* 206.) What dos he say for himself, in that he tramp'ed upon the *Universities*, and all the Arts, calling it a *trifling of time at the Universities*, (*p* 107. *in the frothy Studies of Logick, Ethicks, Physicks, and Metaphysicks*? for all which things I have chastised him in my Answer; but it apears, not enough.

Had these things been known in that *neighbour Universit*, beyond Sea, where, after a Fourthnights sojourning, and a private Examination like that

that of Schoolboyes when they are admitted Freshmen into our Colledges, he was dubd with a degree *Sub Camino*, to wit, under the Chimney, as I heard himself confess to a Learned Scotch-man, *Mr. Richard Douglas*, who was well acquainted with the Customes of that *Universitie*: So called *Sub Camino*, on purpose to distinguish it from that degree of Honour which is taken publikely in the *Schools*, and which the Scholes of that nation scorn to take, but is conferred only on Gentlemen or Noble mens Servants who have a mind to see the Ceremonies; and signifies no more, then if one of our Professours should jocularly make a Doctor in his Chamber, to gratifie some Friends in shewing them the Ceremonies of that degree, and ought not to set as a Title in a Book. I say had these things been known, we had not heard of this Leaden Title, the publication whereof gave occasion to the setting out of this impertinent

nent Piece; nor is it to be accounted any increase of his Reputation to have added this to his *Batchelors of Arts* degree. I mention this on purpose to give a caution to the *Heads* of our *Universities*, that when they admit Gentlemen *ad eundem gradum*, they may distinguish betwixt that degree taken in the *Schools*, and that *sub Camino*, since they have not any degree of that metal.

I hope no man that has a value for Learning will misinterpret this digression, which is designed meerly to preserve the Honour of *School-Degrees*, which is one main spur to the study of the Arts.

But I may not pretermit his vainglorious challenge he sends me, *to take an equal number of Patients with me of them that come to the Spaw, and which of us should make the best and speediest Cure should wear the Bayes.* —— Ay, this is that he would fain be at, to try Experiments on mens Bodies, which he propos'd before in his *Hydrol. Chym.*

and

and for which I did a little school him, p. 262. of my Answer. But assuredly his tools he works withal are so well known, even by his own description of them in that Book, that no wise man is willing to try their temper. But where is *Modesty* all this while? surely that Vertue has left the Earth, ~~or~~ our Young Men whom it would well become, having put on *Impudence* instead thereof, being past both *Counsel* and *Correction*, hereby verifying that old Adage, *Qui semel Modestiæ limites transiliit, nisi cito castigetur, quaviter evadet impudens.*

Concerning Cures I have done at the Spaw, I have writ at large in my first Book, and modestly too, and have further occasion to mention more in this, and could be much more copious if it were needful, having been sufficiently tried in that particular; and if he be not satisfied, he may further enquire, and then make report. *Ahab* King of Israel has left a good

Rule, *Let not him that puts on his Armour boast like him that puts it off.* 1 *Kings* 20. 11.

I remember I once cured a *mad* man at *Scarb.* with the help of the Water, and some other things that I added, who being very poor, was sent to me above fifty miles, at the Parishes charge where he had lived. If such an one should come, perhaps he might be content to be managed by him, but I suspect scarce any man short of him (except his Relations) will make such a choice.

But I hasten. This Book called *A Vindication, &c.* is like a *Beggars* cloak made up of many patches, (as his manner of writing is) that have no dependency on one another, but are here drawn in together to make a medley.

He tells a long story about the making of Alome at *Whitby*. Concerning which Captain *Francis Cummin* who is the manager of those works, did of his own accord, and without asking

tell

me, there is not any thing of truth
it, and Mr. *John Thomlinſon* who
es alſo in *Whitby*, and is the Alome
erchant, aſſerts the ſame.

Next he has his ſupplements to the
eet Spaw and *Sulphur well* at *Knareſ-*
rough: A large diſquiſition that ſeems ſerves
t juſt nothing but to keep him im-
ertinently buſie, and ſet his wits a
orking. But I am loth to interrupt
im in that enquiry, ſince 'tis to be
doubted, if he had not that to do, he
would do worſe.

Then he gives an Anſwer to certain
Queries ingeniouſly propounded by
Dr. *Foot*, concerning the cauſe of the
ſudden loſs of the vertues of Mineral
Waters, mentioned in *Numb.* 52. *of*
the Philoſ. Tranſact. p. 1050. in refe-
rence to the Enlarged Account of my
Book, the Learned Publiſher thereof
was pleaſed to give (*Num.* 51.) Dr.
Foot's main Query is, *Whither all thoſe*
ſorts of waters being cloſe ſtopped, or car-
ried to ſome diſtance, do not let fall a
yellow

yellow ſhip ſediment, or Ochre, and ſo become effete in their vertues, or loſe their purging property. He anſwers in the *affirmative*; *p.* 122. and that in reference to *Scarb. Spaw*, which he pretends to make out by Experiments. I anſwered *negatively*, as may appear in *Numb.* 60. *of the Phil. Tranſ. p.* 1079. and therein I appeal to all thoſe hundreds of Witneſſes who have drunk *Scarb.* Water at diſtance, Whether they do not find a yellow ſediment in the bottom of their veſſels, and yet the water continues purgative. And to make ſure work, he repeats the ſame again (*p.* 126.) in Anſwer to the eighth Query. But thus the Reader may plainly diſcern what meaſure of Knowledge this Man has in *Scarbrough Spaw*, while he underſtands not this main point wherein *Scarbrough* Water differs from others of this Nation. And then what cauſe there was for all the heat and rude language that he has given me about that ſubject.

There

There again (*p.* 127.) he ſeverely cenſures me to have ſaid theſe words, viz. *That Scarb. Waters loſe all their vertue, yea and their quantity and bulk alſo, though in glaſſes and under the Hermitick Seales, if removed from the fountain.* Let him find thoſe words, or that ſenſe either, and Ile be his Bond-man. If any man has miſtaken me, it is not my fault. In *pag.* 100. of my Anſwer, to which that ſeems to refer, I admit of an *alteration* by carriage through the loſs of the *volatile* parts or ſpirits; but I do not therefore ſay, they *loſe all their vertue*, for they purge ſtill, only I think they open not obſtructions ſo well, nor are ſo pleaſant to the palate. I tell indeed that *Frambeſarius* and *Heers* do affirm, that the *German* Waters carried at diſtance, though cloſely ſealed up in Bottles, loſe ſomething of their bulk and quantity; but I did not affirm that of *Scarbrough*, only infered that my aſſertion touching the loſs of

the

the volatile Spirits was no Paradox, while those other are lessened even in their quantity. But he has accustomed me to bear such charges, and therefore I am the better provided to undergo them.

Then he tells how he Anatomized the *German Spaw* in *Amsterdam*, where probably he is opinionated that he has made some great discovery: and lastly he concludes with his Observations on the Dissection of a woman who died of the *Jaundice*, when he wonders at every thing that he saw, as *Stones* in the *Gaul*, *Schirrus* on the *Heart*, and so he might well, for I believe it was the first; (though I do not charge him for that, since he is willing to learn, notwithstanding in his other Book I found him spurning at *Anatomy*.) So he tels us of the under part of the Left Lobe of the *Liver*, but he forgot to say that it was done with a left handed Knife.

But he tells us he saw something more,

more, and that was, another Woman Diſſected there that dyed of a *Syncope*, I ſuppoſe ſo will he; Although he ſays its more then Probable that ſhe dy'd of ſome other diſeaſe. — It ſeems ſomething there was that made the old wife die. But the *Schirrus* tumour on the *Heart* ſticks on his *Stomach*, and he cannot digeſt it, for he tells of it again, yet ſo confuſedly, as its hard to judge whether he means that Heart did belong to the latter or the former woman. But it may be he was in haſte, and ſo am I to have done with him: At laſt he tells how the cauſe of the *Jaundice* was variouſly diſputed, but he ſayes in ſuch a portion of language, as will make any man laugh, be he never ſo grave.

The truth is his whole Book is nothing elſe then *Nugæ ponderoſæ*, a clattering of fond words. Or if you pleaſe like the ſhearing of a Swine, where there is a great Cry, but little Wool.

Wool. What do his multitudes of Experiments signifie, wherein he so much prides himself? just nothing if they were true and would certainly fall out. I think never any man loved more to hear himself talk, and what he fancies must be presently published, be it true or false, real or imaginary; and like a Child he will have every one to know that *he has a Rattle.*

I have but one word in reference to this other Author *D.T.* and then I have done. He has more severely disparag'd the Spaw then the other, but he produces no testimony but from his own experience, which in Reason cannot be judged Authentick enough, especially when I come to examine it. I have *Right Honourable*, *Right Worshipful*, *Reverend*, and *Welbeloved* on my side to witness with me; if ever he shall let fly again to accuse the Water of any Faults, it is but reasonable that he should name his Witnesses and their

Qua-

Qualities or Reputation; for his own Magisterial Affirmation will not be deemed sufficient.

And if either of these two Gentlemen shall yet further abound in their own sense, and rejoyn, it shall be a very great provocation that shall make me reply having said enough upon this Subject, and perhaps as much as it can well bear, unless I shall be hurried unto *Tautologies*, which I love not, though probably some body else may give Answer. And indeed it seems to me to be very reasonable at length to put an end to Disputing. *Ne nimium altercando veritas amittatur*, as *Macrobius* sayes. Besides that I am weary of the interruption of my other Practical Studies. Farewel.

York.
June 3. 1671.

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June 3. 1671.

An

AN ANSWER

To all that

D. TONSTALL

His Writ, or ſhall hereafter Writ,

Againſt

SCARBROUGH SPAW.

Plutarch reports of *Themiſtocles*, that while he was young he was often wont to ſay, that he had not yet done any thing *Notable*, for as much as he had not contracted Envy, nor met with any Oppoſition: I am not conceited of any thing that I have done, (ſo far as I

know my own Heart) but yet if I may take aim *a Posteriori*, from the Envy and Opposition that I have met with about writing upon the Subject of the *Spaw* at *Scarbrough*, it will appear there is somewhat in't, more than at first I thought on. I am sure of one thing, I have discovered a very *Notable Way*, and therein with all fidelity have endeavoured to serve my Country. If I erred in the manner of doing, 'twas much against my will, yet I have heard on't to the purpose.

At the first, a *Confederacy* threw dirt in my Face, which I hope I have washed off in a good measure; Now comes Doctor *Tonstall*, and he throws dirt in the *Spaw*, but it being a Quick-spring, 'twill in time work it out, though I should be silent, as indeed at the first coming out of his Piece (intituled, *Scarbrough Spaw Spagyrically anatomized*) I had thought to have done, and so to have contented my self with the ingenious Answer, of one to a like piece *Vidi & Risi*, since the weakness of his Arguments, and meanness of his design are obvious to every Reader.

Yet

Yet being done by a Brother of the Faculty, and such an One as of whom I had before given an Honourable Testimony, (though he has now changed his mind) and observing that some few of facile Tempers, or weaker Judgements were a little startled at somwhat that he has objected against the *Spaw*, I judged it necessary to convince my Brother of his Errour, and to cleanse the *Spaw* of the dirt he has left in it, wherein though my work is like that of *Hercules*, when he cleansed the *Augean* Stable, yet my Labour is nothing like his, for I shall wind up all in a few sheets.

He says in his Preface, *he would have what he has written to serve as an Appendix to my Latine Copy, which I have promised on the* Spaw, *and he would cloth it in like Fashion.*—— Thus he has called me out to a publick encounter with him, without any previous Provocation given on my side.—— I hope he will so do as here he says, when he shall be desired, and there is need; in the mean time I shall say with *Arianus*; *Non amo nimium diligentes.*—— He

Dr. *Tonstall* singles out the Author by name.

has seen somewhat of what I have done in that point, and here we have such an Essay of his Art, that he must give me some time to demur, before I call for his help.

He professes himself to be my *Friend*, and therefore I'le treat him accordingly, and in point of Friendship will mildly endeavour to clear up his Eye-sight, that he may discern what is Truth, and so set him right in his way.

He says *he walks uniformly betwixt my Library and Master* Sympson *Laboratory, otherwise he should suspect himself for a lame Physician.*—— I am glad my Friend is so well fitted for his Employment; he is an *Ambidexter*, & *in utrumque paratus*: a *Janus* that looks both ways, *Quem nulla ciconia pinsit.* He has a two-edged Sword, with which he cuts down Diseases, a *Library*, and a *Laboratory*. *Hippocrates* and *Helmont* (he says) *are the two great Lights that rule in his Hemisphere.*—— No marvel then if he sees more than the most of his Brethren, (*vide* p. 14. and 42.) where he applauds himself and taxes them,

them, and more into *Scarbrough Spaw* in two Summers, than I in thirty: Let no man henceforth suspect him for a Lame Physician.

Galen is slieghted by Doctor *Tonstall.*

Only *Galen* he is not taken withal, whose Method he'l allow to be no further Rational, then as he writes after the old man his Masters Copy; he dares not further speak for him.—— Poor *Galen!* I have had to do with Mr. —— and now with Doctor *T.* an angry Adversary, and a —— Friend, and I find that neither of them are reconciled to him. How severely is he censured by some men now a days! I am sure it was not always so! Methinks none should take upon them to judge so great a *Prince in Physick*, but such as know they can do better. If my *Friend* dares not speak for him, but he must want so *good an Advocate*. Well! Let both their works stand forth in open Court to plead for their respective Authors, and then let the learned give judgement according to their merits.

Here I crave the Readers patience a while, till I make a short digression,

and tell the world what *Galens* parts and works have been, and what he has done in the Art of Physick, by which it will appear what real ground there is for his Name o be so trampled on, and his Authority and Labour so slieghtly esteemed, as he is by many in this our Age.

The first rise of Physick.

After the Art of Physick was found out, which is attributed by ancient Writers to *Apollo*, as the first Inventer, and imparted to his Son *Aesculapius*, who polished it much from its rude Notions; He trained up his two Sons *Podalirius* and *Machaon* in the same Art: The former addicted himself to the study of inward Remedies, and the latter to outward Applications; concerning whom *Homer* gives his Testimony, as also *Suidas*.

These kept it as *a Secret* in their Family for many Generations, till at length *Hippocrates*, who was the eighteenth from *Aesculapius*, po' shed it still further, and having it seems a generous pub ick Spirit, drew it into a form o' method, and exposed it to the world; Having not only the helps of his

his Anceſtors, and their Experimen ſ, of the opportunity of tranſcribing the Records which he found in the Temple at *Coos* dedicated to *Aeſculapius*, where the Prieſts *ex Officio* were bound to take an Account of all Perſons that had been recovered out of any Sickneſs, and to tranſcribe both the Symptomes of their Diſeaſes, and the Remedies by which they were cured. And this was the Cuſtome in *Egypt* alſo; yea, and in *Arabia* and *Perſia* to this day, as I have ſeveral times heard Sir *Thomas Herbert* tell, where (he ſays) the ſick people are brought into the Market-place, that any paſſenger may enquire of their caſe, to whom they uſually give an account, and in caſe any man do know a Remedy for ſuch a Malady, he is bound by his Religion to miniſter help, and being found healing it is recorded by the Prieſts.

Hippocrates being learned to a *Prodigy*, and thus furniſht with extraordinary helps, and living to a great Age, (to wit) a hundred and nine years (as *Suidas* reports) adorned this Art with

many grave Sentences, and authentick Aphorisms relating to the several parts of Physick, and from his own large Experience has left many *excellent Medicines*,, and a *Method* which we find of singular use to this day, now after 2000. years, and so probably must continue to the end of the World.

Several Sects in Physick.

His Writings gave an opportunity to others to step in to the Study of the Art, among whom were *Dioscles*, *Caristius* and *Petron*, then *Praxagoras* and *Chrysippus*, then *Herophilus* and *Erasistratus*, all these proceeded in divers methods, and so fell into Factions. Also *Menecrates*, whose pride was such that he called himself *Jupiter*, and wore a golden Crown. He would never undertake a Patient, unless he would oblige himself under his hand-writing to be his Servant and Attendant when ever he should call; so as he was wont to lead about whole Troops of Patients, as so many Trophees of his Cures, all whom he called by the names of *the Gods*, as *Athenæus* and *Hegesander* make mention.

After these started up *Serapion*, *Apollonius*,

Asclonius, *Glaucias* and *Herodotus Tarentinus*, with several others who called themselves *Empiricks*, and so made a new Sect.

Then followed *Asclepiades* and *Themison*, who instituted another Sect called *Methodists*. After these *Cornelius Celsus* stepped into the Profession at *Rome*, being the most Learned of all the Latine Physicians: He lived in the time of our Saviour, and was commonly stilled *Latine-Hippocrates*, and well does he deserve to be accounted one of the Princes in Physick, as he is ranked by the Learned. After him was *Archigenes* of whom *Juvenal* does several times make Honourable mention, who lived in the Reign of *Adrian*.

To be short, then came up *Thessalus* the most proud and malepert Fellow that ever was in the world, who as *Pliny* saith (*lib. 25. Nat. Hist. cap. 1.*) madly raved against all the most excellent Physicians that had been before him, contemning them all, even *Hippocrates* himself, accusing them of gross ignorance, while he boasted egregiously of himself and his method, as in his

The decay of Physick.

his Letter to *Nero* may appear cited by *Galen* (*lib.* 1. *Meth. cap.* 11.) although yet he knew nothing of solid Learning, or the Art of Physick, but depraved it with an unwholesome Method, and a number of unsound medicines.— Were I a *Pythagorean*, and did believe a μετεμψυχωσις, I should think his Soul had been several times since translated into another Body.

Thus was this *Noble Art* lacerated and torn by various Factions, the perverse humours of some disquieting the peace of others, the wholesome received Principles raised, and the Practise differing in every Country, while yet *every Quack* magnified his own way, and mens lives were most in jeopardy in the hands of them who pretended most to preserve them.

Its reparation by *Galen.*

In the midst of this decay steps up *Galen*, (*vid.*) in the second Century from the Nativity of our *Saviour*, and 600. years after *Hippocrates*. He was certainly the most Learned of his Age in all the parts of useful Learning, as his voluminous Writings do sufficiently make out, but especially in Physick,

ſick, even to a *Prodigy*; which Art being left imperfect by *Hippocrates*, and not fully elaborated as Himſelf confeſſes in his Letter to *Democritus*, where (he ſays) that though he had now lived to be old, yet neither He, nor yet *Aeſculapius*, nor any that he had met with, had attained to any conſiderable height in the Profeſſion, but muſt leave it imperfect: But *Galen* undertook this task, and has brought it to ſuch a perfection, as no Art beſides in the World can pretend to, and thus not only in the judgement of the *Antient Princes* in Phyſick, who followed him, as *Paulus*, *Actius*, *Oribaſius*, &c. who have tranſcribed moſt choice Sentences, and long diſcourſes out of him word for word, as not being able, or not needing to adde to him, but alſo in the Suffrage of our beſt *Modern Writers*. What was obſcure in *Hippocrates* he has cleared up, he has diſtinguiſht of things that differed, and ſupplied what was defective. Not that I would make him to be infallible or that nothing has been added ſince, or yet may not be, but that certainly he was the

Galen in high eſteem among the Antients.

the greatest *Benefactor* to, and *Polisher* of *Medicine*, that ever was in the world. He had indeed *Hippocrates* his Foundation to build upon, but assuredly thereupon he raised a most admirable structure,

He encountred the several Sects I mentioned, discovered plainly their impostures, their ragged Methods and unwholesome Medicines, and enriched the Art with *excellent Tractats* upon every part of Physick, and innumerable *rare Remedies*, which retain his Name to this day: And hereto he was enabled not only by the help of the *old man his Master*, (as our Author calls him) but also by his own *prodigious* parts, length of time that was betwixt them, and his own large Experience through age, for he lived till he was an *hundred and forty years* old, and therefore probably he might be trusted, though he should in some things differ from his Masters Copy.

While he lived he was esteemed the prime Star of the first magnitude in his Orbe, and of singular account with the Emperour *Antoninus*, and the many

Volumes

Volumes he has left behind him, have begot him a Reputation, which Envy can never blast, among such as are learned. This made *Fuchsius* cry *Non dubium est quin à Deo excitatus*, &c. to wit, no doubt but he was raised up by God to repair the Art of Physick, which was extreamly shattered in these times (*Hist. 1. instit. med.*) And *Valleriola* says of him, *Quem Heroa potiùs ac dæmonem, quàm Hominem appellare suo sanè merito possumus*; he knows not whether he should not call him some Cælestial Hero, or Angel, rather than a Man, such was his merit in his esteem (*Loc. com. lib.* 1.) To these I'le add but one more, which I find in *Eusebius* his Ecclesiastical History (*lib.* 5. *cap. ult.*) who tells that he was *worshipped* (such was their Opinion of him) by some of the Heathens *as a God*. He was indeed no Christian; though I read, that hearing of the miracles that were done in these Primitive times, by the followers of the Apostles of our *Saviour*, in the curing of diseases by a word. He fell into *Admiration*, and made a Voyage towards

As also among the Neotericks

wards *Judæa* to know the certainty of it by his own view, but as God would have it died by the way.

Thus far I thought fit to digress on this occasion, that I might give some account to the world of this great *Prince in Physick*, *Galen*, and to make it out that he was no Trifle, as some would render him, but that his Name was, and is yet in Reputation among such *as understand him well*. I now proceed.

Dr. *Tonstall* says, *he hopes it will appear, that in this Tract he has been very candid towards me, and said nothing* ad Personam, *but* ad Rem. —— 'Twere well if I could find it so; I think no man that has read his Book is of that mind; but seeing he pretends it, I shall willingly leap over a great many of those Reflexions *ad Personam*, (besides what has been told me by Persons of known integrity of his liberty of Speech) and only examine such as are *ad Rem*, if any be so, wherein I'le use as much Candour as the Nature of my task can admit.

He says, *he has not concerned himself*

in

in a word which I have ſaid in my two Books, but only what was neceſſary ſe Defendendo.—— Really I wonder at this Expreſſion! Who ever offended him, that he ſhould ſtand up in his own *defence*? Is not he the Aſſailant and Aggreſſor? What was there in my Books that concerned him? Indeed I mentioned his Name *p.* 107. of my Anſwer to *Hydrol. Chimica* with ſome ſincere reſpect, wherein he has made it appear that I was miſtaken, and therefore I'le henceforth *reſume* ſince he has *recanted*.

He boaſts of his Mechanical Demonſtration, whereby he makes out the Material Principles of the Spaw, *and preſents them to our Senſes*; and ſays, *that my failure was, that I left off where I ſhould have begun.*—— To this I ſay, I have ever obſerved the greateſt Cenſors either produce nothing of their own, or what is more ridiculous than any thing they reprehend. Much of ill Nature, and a very little Judgement, go a great way in finding the miſtakes of Writers, eſpecially when a deſign is at the bottome.

He

Dr T disingenuous towards the Author

He says, *after I had observed what was most conspicuous about the* Spaw, *and found that the Gall tinctured the Water of a dark purple colour, I contented my self with fair probabilities for asserting the five Principles.*——— So again (*p.* 19.) he cites a passage out of my Book, where I say the Principles cannot be separated further then I had expressed,—— he adds of his own—— *Namely by putting gall to the Water*, &c. and then he Comments upon this Assertion in both places with reference both to my self and others, to whom he undertakes (though impertinently enough) to read a *Lecture of Anatomy and Experimental Physiosophy*, and tells of things that no man ever doubted of, or in the least opposed that understands any thing in Physick, but teaches us that *the separation of the Principles should have been made by fire.*——— Thus he would gladly make the world believe, especially those that have not met with my Books, that all that I have said to make out the five Principles was but this, that the Water is tinctured black by the addition of Gall.

But

But I would ask him if this be the kindneſs of a Friend (as he profeſſes himſelf to be) to cite thus, and to leave out the reſt of my Arguments of demonſtration, whereby I made them out.

This indeed I mention (*p.* 9. of my firſt Book) as a Token of *Vitriol*, to which there I added the *acid taſte* and *inky ſmell* (27.) to prove *Alume*, I mention its curdling of Milk, and the bubbling noice it makes when its boiled near the bottom, which I made out to be a peculiar property of *Alume*, from the teſtimony of good Naturaliſts. (37.) To prove *Iron*, I mention the black ſediment that falls to the bottome of the veſſel after Gall is put into it, which calcines red being near of kin to Vitriol, which therefore (*p.* 10.) I called *Ferrum Vitriolatam* or *Vitriolum ferrugineum*; beſides the uſe I made of it inwardly, wherein I find it to perform the ſame intentions with *Iron* or *Steel*, and that it tinges the Excrements black, as all our preparations of *Iron* do; together with the yellow Sediment which falls to the bot-

tome of the veſſel, when it is carried at diſtance, being much like unto *Crocus Martis*, as I expreſſed it (p. 11.) and he himſelf calls it ſo (p. 57.) when he obſerved it in the ſpout of *Knaresbr. Spaw.* (4*ly.*) To prove *Nitre*, I tell of its ſhooting into *Stiriæ* or Ice-ſickles, which is the peculiar property of *Nitre.* (5*ly.*) I ſay what *Salt* it has, it takes from the Sea, although I declared it to have but very little Salt in it.

Then again I demonſtrate theſe from their *Adjuncts*, that there is a great probability that theſe are the Minerals that are in it. 1. From the veins of *Nitre*, which appear in the cliffe like hoar-froſt or ſnow, and eminently within a few yards of the Well. (2*ly.*) From the many ſtones of *Iron* that are in the Cliffe, beſides the Earth that turns to an *Iron-ſtone*, and melts in the Smiths Forge like Metal. (3*ly.*) The abundance of *Alume-ſtone* that is in all that Cliffe. (4*ly.*) The plentiful imbibition of ſo many Minerals, which is promoted by the Acidity of the *Vitriol*; as alſo the

Vitrio-

Vitrioline juyce, which is yellow of colour, that sweats out of the Cliffe about 110 paces from the Spring, which he himself two years ago, *when he had no design to carry on*, acknowledged to be no other then *Vitriol*, which gave me occasion to mention him and his consent therein, *p.* 107. of my latter Book. (51.) The propinquity of the Sea gives ground to many wise men to think it may have *Salt*. Besides much more that I have said in my latter Book to prove them all against that my fierce Adversary while he denied them, and as last was forced to confess them.

Now while I have *in terminis* expressed all these Experimental Proofs of the five Principles, and exposed them all not only to wise mens Reason, but also to the view of *many Persons of Quality*, and particularly to those *Honourable Lords and Gentlemen of the Royal Society* the last year, to whom I presented by that eminently Learned and obliging Gentleman *Henry Oldenburg*, Esq. seven or eight sorts of Extracts and Spirits, which I took out of

The Authours letter to the Royal Society.

this Spaw-water, which these *Noble Worthies* were pleased to receive with *some satisfaction*: a full description of which Extracts, &c. the Reader may find in number 60 of the *Philosophical Transactions*, with my Letter at large: I say, while I have thus fully and plainly made them out, it was not *candidly* done of him to mention that of *tinging with Gall*, and to leave out the rest, on purpose to render me ridiculous. But thus he deals with me as *Hanun* did with King *David's* Messengers, 2 *Sam* 10. 4. of whom the Text saith, *that he shaved off the half of their beards, and cut off their garments in the middle even to their Buttocks, and sent them away on purpose to make them ashamed.*—— But this did so exceedingly disoblige King *David*, that it became an occasion of breaking that bond of Friendship that had been between them.

I was indeed short in my first Book, while I discoursed of these five Mineral Principles, because I designed brevity, yet thus much was said to make them out. And being called into

into question by Mr. *S.* for this very thing, I refer to the Learned, whether in my Reply to him, I have not stood my ground. But this also our Author had a mind to overlook, boasting of his own *Mechanical* demonstration, as if I had offered nothing of Experiment to prove them.

And whereas he says (*p.* 20.) *that first was the proper Instrument to effect the separation of the Minerall* —— aiming thereby to make the world believe I had only taken notice of the tinging with Gall, and never tried it by fire: and hence he says (*p.* 34.) *that if Light had been brought in by the hand of a Chymist* —— strange things had been discovered. —— I am certain of this, that the hands of some that call themselves Chimists have brought more *Heat* than *Light* into our Faculty. But thus it seems, let but some men assume this title of a Chimist, and they take upon them boldly to say what they list, as if thereby they had got a Patent for freedome of Language.

Did not I mention a Body of Minerals (to wit) an ounce in five quarts of

the water, which may be extracted either by Distillation, or Evaporation over the fire? (p. 10. And notwithstanding it contradicts what he would here impose upon me, that I only tryed the Water by Gall; Does not he himself cite a passage of mine (p. 151,) where I had been discourſing concerning this Body of Minerals, which in that place I said cannot be extracted without a *long and vehement fire?* —— What makes all this double dealing for advantage? Such Artifice is very unbecoming, and (to use his own word) favours more of a *Mechanical* than *Academical* demonstration. If this be *Friendly*, or *Manly*, (to say no more) I neither understand what is *Friendly*, nor *Humane*.

And whereas *he carps, because I said they cannot be further separated than I had expressed.* —— I am certain these Minerals are so united in their Subject, the Water, as that when they come under the most *Critical* Scrutiny, *never a one of them* will be found to be intirely such, but a quite other thing, or *tertium neutrum*.

(Pag.

(*Pag.* 13.) He confesses some Levity of Opinion he had of late been guilty of, in reference to these two Northern Spaws at *Scarb.* and *Knaresb.* one year perswading his Friends to go to *Scarb.* and the very next year to *Knaresb.* This he excuses from his own Practise, *that he commended no other to them than he took himself, and then he wishes that all Physicians were bound with this girdle*, propounding therein himself as a Patterr. —— If he means that all were bound to be like him in *Levity* and *Wavering*, I know no man that will say *Amen.* Physicians ought better to understand the Remedies they use: But if in his *Honesty*, we will all own our Engagement to him for so *good an Example.* He confesses his levity.

To this I'le adde, he brought his Wife with him to *Scarb.* who there found a Cure of a Malady, which neither his own Art and Skill, nor *Knaresb. Spaw* could have effected, but of this more anon. —— This convinced him of the Excellency of *Scarb. Spaw*, on which account he magnified it exceedingly, as a rare working Wa- He extols *Scarb. Spaw.*

ter, while he undervalued the other of *Knaresb.* as much, which he accused to be little impregnated with any Mineral Ayer, and consequently to be a dull, heavy Water, not passing well through the Body: And of this there are not a few Witnesse, both at *Newcastle* where he lives, and elsewhere.

On this account (in *Anno* 1669.) he perswaded a great many Persons of Quality to come along with him to *Scarb.* wholly resolving, as appeared to them, to desert *Knaresb.* which for above 10. years together he had frequented. But somewhat there was wherein (it seems) his Expectation was frustrate, so as he must resolve to return again to *Knaresb.* and having a great mind to draw back his Train of Friends with him, and to make some amends for his deserting and disparaging *Knaresb.* he takes the most plausible way (so long as 'twill hold) to leave his dirt in *Scarb. Spaw*, accusing it of some notorious Faults, following therein the *Machiavellian* Rule, *Fortiter incusa aliquid hærebit*; laying on load enough, in hope that something will

He disparages it, and returns to *Knaresb.*

will stick. Three faults especially,

First, *That it has a petrifying property, and generates the Stone.* Three faults in Scarb.

Secondly, *That there are filings of Stone and Clay in it, whereby it breeds Obstructions, and causes the Jaundice.*

Thirdly, *That it corrodes the Bowels, and causes a Dysentery.*——— I'le now examine how he makes them out.

To begin with the first, (to wit) that it is petrifying, which I shall examine both in point of *Reason*, in reference to some Principle in the Water, which he confesses, and so does agree with me, and also in *Experience*; and I doubt not to satisfie wise men in both, and perhaps himself too, that he labours under a grand mistake in this his Assertion. It's petrifying.

He finds *Nitre* in the *Saw*, and some small matter, which after it has passed through the heat of the fire in Evaporation, will not pass the Filter; and he finds *Kircher* discoursing *de succo lapidifico* to affirme it to be *a Nitrous Stone dissolved in Water*; this gives ground enough to him, who was catching at advantage, to accuse the Water to be petrifying. *Arg.* 1.

I

A Quotation out of *Kircher* examined.

I shall as to the matter that will not pass the Filter examine that by and by, and for *Kircher*, I honour him as a very Learned Writer, and the Author as my *Friend*, but *magis amica veritas*. In that place *Kircher* is telling of several Springs, that turn Sticks, Straw, or Leaves into Stone, or at the least do cover them, being laid in them for a while with a stony Crust: Now if the *Spaw* have that property, of crusting any thing into a Stone that is laid in it, then his Quotation will require a consideration of us, but this he affirms not, and therefore it is impertinent.

Of *Nitre* and *Salt*.

Nitre is esteemed by all Naturalists to be of volatile parts, exceedingly penetrative, and a great dissolvent, and therefore it is (says Dr. *Jorden*) that it serves for the dissolution of Metals (*cap.* 7.) and all that ever writ of it do agree in this verdict, yea, *Kircher* himself (*lib.* 6. *cap. de Nitro*) says not much less of it, and fixes the petrifying property plainly upon *Salt*, which he calls the proper and proximal Element of Earth, which subministers crassness to

all

sorts of mixt bodies. His words are ——— *Omnibus mixtorum speciebus essentiam & proprium consistentium substruat, verumque & proprium praxique terræ Elementum dici debet, cui Sal sensibile non nisi subjectum materiale est*, and a little after, speaking of the difference betwixt *Salt* and *Nitre*, he owns *Nitre* to partake eminently of the Elements of *Fire* and *Air*, and to be full of fiery spirits; whereas *Salt* he owns to be partaker of the two grosser Elemants *Water* and *Earth*. Now how that which is of such thin, volatile, and fiery parts, so penetrative and dissolvent, as that it dissolves Metals, should be the matter of a Stone, I understand not, nor (I dare say) does Dr. *Tunstall*. It has been commended in all Ages by Physicians against the Stone, as that which they expect would dissolve it: Yea, I appeal to Dr. T. his own verdict (*p.* 124.) where he says he preferred the *Nitrous* spring at *Scarb.* before the *Vitrioline* at *Knaresb.* and makes a high appeal whether it be not a more *noble* Principle for dissolving or expelling the Stone. *Kirch* himself

himself grants as much to any Nitrous Spring, (in the place cited, *in Consectario*) *Nitrum aquis naturalibus insitum purgat, incidit, penetrat, detergit, obstructiones expedit, movit, propellitque arenosam renum vesicaque substantiam.* Eminently true concerning this Spring at *Scarb.* and I pray how can it have a petrifying property from *Nitre*, which is so penetrative, as here we find *Kircher* confessing.

Besides, who ever saw a *Nitrous stone?* Nitrous Earth is ordinary; *Serapio*, and *Dioscorides* tell indeed of mines of Nitre in *Armenia* and *Arcadia*, whereas *Bellonius*, *Pliny* and *Gesner*, say its only found above the Earth, but never any mention is made of *Nitrous stones*, and indeed its altogether inconsistent with the Nature of it, which is impregnated with such abundance of fiery and aeriel spirits, as we have heard from *Kircher*, his Author whom he grounds upon.

But this is not all, for in this point *Kircher* himself is extreamly roving, and unresolved, wherein this petrifying property shall reside, and what

mineral

mineral to fix it on, for (*lib. 8. cap. de origine ſucci lapidifici*) he ſays, *that either Salt, or Nitre, or Acome, or Vitriol, or Brimſtone will ſerve to make a Water to turne a ſtick or leaf*, &c. but how unreaſonable a thing it is to ſuppoſe that any of theſe Minerals, that are of ſuch thin, hot and piercing properties, can become the matter of a Stone, I leave it to wiſe men to conſider of, and to be upon infer that our Authors laſt Argument, drawn from the Authority of ſuch an uncertain and wavering Writer, is of no validity at all.

Secondly, *He would prove the* Spaw *petrifying by making a Parallel between it, and the dropping Well at* Knaresborough *which in a very ſhort time will cover Moſs, or Straw or Sticks, that are ſuffered to lye in it, with a ſtony Cruſt.* To both theſe Arguments I'le anſwer in one word: Let any man ſhew me a Stone ſo generated by *Scarl. Water*, though the trial be made from a month to ſeven years, and I'le give up the cauſe. 2. *Arg.*

Thirdly, *He proves it from the muſſel-ſhells, and ſuch like things that are found* 3. *Arg.*

found near the Spaw *on the Sands, as if they were converted into Stone by the petrifying spirit that is in the Spring.*——Some such Shells are indeed found (although very rarely) on those Sands upon the superficies of the Earth, but seldome or never in the Cliffe (I may confidently say) or at least not more than in other soils: These lying loose upon the Sands are undoubtly cast up by the Sea, and we know such things are found in all Countries upon the Sea-coasts, even where no such Springs are. Let no man laugh at this Argument of our Author, for though it sounds like that of the Kentish Parson, who affirmed, that *Tenderdens-steeple* was the cause of *Goodwins-sands*, yet I account it as solid as any other Argument, whereby he makes out the point in hand; in truth they are all of the same stamp.

Whether the Sea doth petrifie or no.

And whereas he takes check, because I said they were petrified by the Sea; I suspect no other that pretends to Philosophy will deny this property to be in the Sea, and I shall easily allow my Friend to be singular. Assuredly the

e Sea does petrifie, by the plenty of
fixed Salt, any thing that has in it a
idescent juice; from whence it is,
t ſo many Stones of various colours
caſt up by the Sea. Thus *Coral*, o-
rwiſe a Plant, is hardened by the
into a Stone, as Dr. *Forden* obſerves.
ve often ſeen Fiſh-bones caſt up
the Sea, which have been almoſt
ned into a perfect Stone. Hence it
nes to paſs, that he that has any *La-
ſcent juice*, which Phyſitians uſual-
call a *Tartarous humor*, ſhall ſooner
tract the Stone if he eat much Salt
h his meat; and therefore Salt meats
found to be very ill for ſuch as are
linable to the Stone.

But while he is managing this Ar-
ment, and denying the petrifying
perty of the Sea, he ſays, (p. 32.)
then what befel Lot's *Wife judici-* Of *Lot's*
is not ſo great a Miracle as that we Wife.
*not all naturally turned into Pillars of
t, that eat ſo much Sea-ſalt daily.*—
re he ſeems to fall into a grand mi-
e, while he ſuppoſes that *Lot's*
ife was turned into *Marine* Salt, or
h as we eat with our meat. I do in-
deed

deed think with Learned Dr. *Brent*, M. *Cowley* and others, that that story of *Lot's* Wife must be literally understood. Now forasmuch as we know there is a *Mineral Salt* which is hard as Stone, and may serve indifferently for building, not being subject to melt by the moisture of the Air; it seems very probable, that she was turned into that *Mineral Salt*, and not *Marine*, which would have melted with every shower, and so could not have suited with the design of God, who would have it to be a durable Monument of his Indignation against her Disobedience and Curiosity, contrary to the expressed Will of God. Of the *mineral Salt*, see more in *Pliny lib.* 31. *Nat. Hist. cap.* 7. And *Josephus* sayes he saw it (*lib.* 1. *Ant. Jud. cap.* 11.) in his dayes, when it had stood about 1000 years. Although our modern Travellers report there is *nec vola nec vestigium* now a dayes of it; as both English, French, Roman and Dutch do testifie. *Vide* Mr. *Geo. Sandys*, *Pietro del la Valle*, *Doubdan*, &c. And the Learned Dr. *Isaac Basire*, in his Travels in that Country,

Country, assures me, that though he made a diligent enquiry after it, yet it is not to be found. But if our Author shall say, He does not affirm that she was turned into a *Marine* Salt: Why then his mention of it is nothing to the purpose I

As for what he adds concerning the Earth, which in one place turns to an Iron-stone, I have said enough to that p. 28, & 45. of my Answer to *Hydrol. Chym.* although here he seems to infer (for his design) that all the earth that falls down near the Spaw turns into Stone, which is no: so.

Fourthly, he endeavors to prove it to be petrifying, *by the effects that it produceth in those that are subject to the Stone*, (p. 33.) wherein he cites his own case, to wit, *That having been cut for the Stone, and one taken out from his Bladder that weighed four ounces and an half, the Summer following he drank of Knaresb. Spaw, which Water he mixed with white Wine: these* (he says) *brought away by Urine abundance of mucous matter* (p. 61.) — There he cites a place out of *Helmont*, whom he calls the *Arg.* 4.

Dr. T cites *Helmont* impertinently.

Prince of Reason, who he fancies sets down the reason of that Operation in these words: *Ubi custodes malè se habent, continuò plorant partem proprii alimenti quod sibi assimilare debebat.* — Why he should set such an Accent on his Author in his quotation of this Sentence, I know not: The learned Reader will easily observe what Harmony there is betwixt his Matter for which he cites them, and the Words, for in my judgment they agree like a Harp and a Harrow. Nor does it appear that he understands *Helmont*'s meaning. To say no more then what appears true to Learned men, this is one of those Sentences wherein *Helmont* affects Obscurity, and is scarce intelligible. I suspect my Friend does in this, as 'tis said of some Divines, That they *weed* the Fathers works, picking up many times what is impertinent, while they leave the *Flowers* to be pluckt by others.

Ob. Scarb. gave him a fit of the stone.

Two years after he visited *Scarbrough*, and brought his Wife and above thirty Persons of Quality, that lived in and about Newcastle, where after

after a fortnights drinking of that water; *He says it gave him a fit of the Stone, which he had not felt since his cutting;* (p. 22.) *for he felt it slip from the left Kidney into his Bladder,* (p. 43.) *and at the same instant a Thunderbolt from the right Kidney darted into his great Toe;* and afterwards he tells (p. 33.) *that when he left the Waters, he had another fit for two days, and this Stone he will have to be generated by the Petrifying property of the Spaw.* (p. 35.)

THIS I have gleaned up out of that confused method which he pursues in his Book, the substance of his Argument, which he grounds upon his own Experience.

For Answer. Here our Authour *thunders* terribly; and tells of the *bolt* in his Toe, But where is the *lightning* all this while? I see none, only *lightning* enough—— I do very much wonder to find him commending *Knaresborough Spaw* for bringing away the mucous matter, which he acknowledges might have been the Foundation of a Stone, and yet discommends *Scarbrough* for bringing down the Stone. Certainly *Answ.*

he had the same reason to charge it as a fault in the former, that it bred the mucous Matter, as in the latter that it bred the Stone, which if he had, no man would have believed it: but I suppose that would not have suited his design.

I find him confessing (p. 14.) *that Scarb. has imbibed Nitre, which there he acknowledges to be a noble Principle against the Stone*: And wherein, I pray, consists the excellency of that Principle, but in expelling the Stone, or dissolving it? and therefore it is prescribed by all Physitians, antient and modern, for that very purpose; and yet here, when he findes it to perform the intention, he sayes it bred it.

I grant (sayes he p. 34.) *that by reason of abundance of Nitre in the Water, it will force out stony gravel in the kidneys when any is there*—— Why? is there not reason then to suspect, that he that had been wont to have stones bred in his body, might have so again, for certainly his constitution was not altered by the cutting; and so this Nitrous Water might bring down what was

bred

bred there before, and not what it ſelf had generated. *Kircher* will tell him, he had reaſon to look for it. *Plures ſæpius à calculis liberati tandem eos iterum concipiunt, eo forte modo quo Saxifraga evacuatæ novos cum tempore concipiunt Saxorum fœtus*, lib. 8. ſect. 2. cap. 3. And there alſo he tells him from whence it comes, *viz. à Facultatis expultricis imbecillitate, & materiæ terreſtris & ſalis in humido diluti copia.*

Again, how can it be ſuppoſed, that while there is ſo conſtant and plentiful a current through thoſe paſſages of Urine, and this promoted by the Nitrous Water, which he confeſſes to be ſo cleanſing, yet at the ſame time a ſtone ſhould be generated, and that alſo in a fortnights ſpace? Does not he acknowledge (p. 18.) *that he drank it the year before*, and yet we hear nothing of diſlike, but a high commendation of it to many worthy Perſons of Quality? Indeed then he had another deſign to carry on, which if it had ſucceeded, doubtleſs we had heard none of this; but that failing him, as the Fox ſaid in the Fable, the Grapes are

sowr, and *the Nitrous Water breeds the Stone.*

Ob. About Experience. Ay but some may object to me, you argue against *experience*, which is the surest Rule to prove a thing; *He tells you, his reins have tried it*, (p. 44.) and found it too true.

Answ. I answer, It had been better if his *brains* had tried it throughly; but since we are to seek for that; I will endeavor in kindness to instruct him. I dispute not against *matter of Fact*, but only examine the Inference, Whether that Stone so expelled, could be bred by the Spaw or no, and that's a point of *Reason*. I am certain he takes *non Causam pro Causa*; nothing is more manifest, then that it was the Cause of its Expulsion, but that *it* should breed *it*, I have already, and shall yet further make it out to be impossible.

A particular mans experience, of *such an One* especially, who for by-ends seeks occasion of cavil, and is glad to finde the least pretence to it may be fallacious, and I am assured this is so, and in the Judgement of all wise Men cannot be sufficient to be drawn

drawn in to make a *Rule to judge* a thing by. *Experientia* should be *multiplex*: it must be an Induction of a great many particulars, and of long duration, made by impartial and unbyassed judgments, that must concur to ground a *Rule of Experience* upon. And I dare undertake to bring in an Induction of hundreds of *honest* and *impartial* Witnesses, that can have no sinister design at all, who in the Disease we treat of (to wit, the Stone) have found benefit, and never any the least harm, besides those I have mentioned in my Book called *Scarb. Spaw Edit.* 2. Let my own Experience come into plea with his, who have frequented it these 30. years, besides several that I could name, Persons of Quality, who stand admiring at this unreasonable charge of our Author: These having drunk of it ten or twenty years together and upwards, yet never found the least ill symptome from it in this point or any other, when they went regularly to work, and were advised.

Scarb. Sp. excellent against the stone.

I must confess I have known several that have got quit of many Stones, and

much Gravel by drinking of it, and ever without any considerable pain. I know a Lady that voided 28 *Stones* at these Waters, many of them as big as a peaſe, four years ago without trouble. And Mr. *James Duncanſon* a Scotchman, told me the laſt year he thought he voided half a Jill of Stones and Gravel at once without much pain, having been very often before ſubject to grievous fits of the Stone. Nothing is plainer every day then this; to finde Stones expelled at theſe Waters; and yet none of theſe, nor I ever had the leaſt ground to ſuſpect that it bred thoſe Stones or Gravel.

A double cauſe of the ſtone.

If it bred the Stone in the Body, it muſt do it either as *Cauſa Materialis*, or as *Cauſa Effectrix*. If as a *Material Cauſe*, that muſt be by miniſtring ſome crals matter which is apt to condenſe into a Stone; but this the water cannot be thought to do, ſince it is a pure water, and that alſo ſtrongly impregnated with a *Nitrous* Salt, which is a great Diſſolvent, as we have ſaid already, and of thin parts. Secondly, the *Efficient Cauſe* conſiſts in an innate and natural

diſpo-

disposition towards the breeding of Stones and Gravel, from the fiery heat of the Reins and circumjacent parts, which condenses some crass matter into Gravel or a Stone, even as a Potters clay is by heat hardened into a stone, as *Trallianus* expresses it, *lib. 9. cap. 4.* now this the water cannot promote, because it is Nitrous, and consequently cooling, and is ever found to quench the intemperat heat of the Reins, and all the internal parts.

But our Author accuses it as a *Material Cause*, and to leave matter in the body which will condense into a stone, by reason of the stone-filings that are in it, *p. 35.* where he compares it to the *dropping Well at Knaresb.* that covers any thing that is laid in it some while with a stony crust. *Obj.* About stone-filings.

To this I reply; the Spring flows as clear as any whatsoever, and if it be clear taken up, as we drink it at the Well, I know no ground of complaint. Perhaps in filling of great Vessels they may trouble the Spring, and so take up some gravel or sand, which might beguile him, and make him look *Answ.*

look on it as an inseparable adjunct.

Again, all waters of this nature that are impregnated with Minerals, will usually let fall something to the bottom, which is commonly called *Ochre*, and this does so; whether it be carried in wooden vessels, or stone, or glass, though he says *p. 55. 'tis the corosion of the Vessels by the Water*, yet learned Writers on the subject never thought the worse of them.

The Water filtred. Among the body of Mineral ingredients wherewith this water is impregnated; there is a part after it has passed through the heat of the fire in the evaporation of the water, that when it comes to be dissolved again in pure water, will not pass the filter, while yet before it came to the fire it would all have passed through, as I have sometimes shewn to several Persons of Quality, when two quarts of the water newly taken out of the Spaw dropped through the filter, and left not so much sand behind, as would make a man wink if it were in his eye, and yet being evaporated away over the fire, it afforded the same sediment in *substance*

and

and *Quantity*, as if it had not been filtered; such alteration has the fire made in it. Now I doubt not but the water which we drink that never came at the fire, whereby the fixed parts of the Minerals should be condensed, will as easily pass through and penetrate our bodies, and leave no dregs, as at the first it does the filter.

Fire a proper Instrument, but not a fit Medium;

Indeed I agree with him in this, that fire is the most proper instrument to try what is in the water, and therefore it was that I proceeded by it in extracting these Minerals, as before I expressed; but I do not judge it a fit *Medium* whereby to prove its working in our Bodies, which is the thing he drives at all along; for that which fire will condense or thicken, may yet be as fluid as water in our Bodies. As for example, the *Serum* that is in the Blood, and is its Vehicle to help its Circulation in the Veins and Arteries, is like water, as we see it in the vessels when we take Blood; yet put this into a Saucer, and set it on the fire, and immediatly it turns thick like Starch. I knew a worthy Knight in *York-shire*, who

who out of some such perswasion, was wont to dehort others from drinking of Sack, shewing them that a glass of Sack poured into a red hot fire-shovel, would leave a thick sediment like Paste or Starch, when the thin parts were evaporated; but I suppose no wise Man, or good Fellow, would like it the worse for that. And therefore upon the whole matter, I may very well and truly deny that any such filings of Stone, or Clay, or Sand are left in our Bodies while we drink this Water, to breed the Stone or any other malady, or the least ill symptome; and I am certain, that in the large Experience that I can pretend to in things refering to this Water, there is no ground to believe it.

Note. But that I may yet further discover the weakness of this Argument, I shall let him know, that a water may have a *petrifying* property, so as it may turn any thing into a Stone, and yet in a large Tract of Experience, it may be found safe to be drunk, yea and be an excellent Remedy against the Stone. Did my Friend never read Dr. *Fuller's Worthies*,

Worthies, who was a most learned and ingenious Gentleman? In his Description of *Warwick-shire*, (*p.* 117.) he tells of a Spring at *Newenham Regis* that is so petrifying, that it turns sticks into stone, (which Mr. *Speed* his Author whom he cites, says he was an Eye-witness of) and yet withal he adds, that its found to be very Soveraign against the Stone. If I were disposed, I could tell where our Author has commended the dropping Well to some to drink a long time of it, when sure he had no jealousie least it should breed the Stone in those Patients.

But it appears from this Argument, that *he is of opinion that whatsoever is* Note.
hony, is apt to breed stones in the body, and consequently is dangerous for such as are inclinable to the stone. So he argues (*p.* 32, & 35.) why then how comes it to pass, that our most excellent Writers do prescribe such things against the Stone? *Marcellus* one of the Princes in Physick, commends the powder of a Crab-shell to be drunk in white Wine against the Stone. And

Actius

Aetius another, commends that very stone that has been bred in the body, and is expelled by urine, to be powdered, and drunk as an excellent Remedy against the Stone. (*Tetrab. 2. serm. 3. cap. 10.*) I could multiply instances of like sort out of our best Writers.

By this reckoning we should lay aside Pearl, Coral, Crabs eyes, and all sorts of precious Stones. We should abandon all our *compound Species* and *Trochisks*, and what not. The *Lady Kents powder* and *Gascoigns powder*, with many more, must be held dangerous against the Stone, and we should use nothing but the fiery hot Spirits of the *Pseudochymists*, of which we shall hear anon. But assuredly this doctrine will not easily go down with the wise Men of this generation, nor will the great Ladies believe it.

Nothing is more ordinary then to see the powder of *Spar*, which is a hard mineral Stone, to be taken inwardly with good success, even by wise and intelligent persons, as also the powders of Egg shells and Gromel-

mel-seeds, which is almost as hard as stone, who never can be made to believe that they breed the Stone.

But what if I should grant him, that the natural heat of the body may condense the fixed parts of the mineral and metaline Principles of this or other the like waters, as the fire doth, yet it would not follow that they could breed the Stone; for 'tis impossible for such a gross substance to pass through the small and capillar Veins of the Mesentery, or the emulgent Veins, which it must do before it come into the Kidneys to breed the Stone, nor ever was any such thing found or suspected, till this our Author *fancied* it; but it must of necessity be thrown by the purging property of the water into the bowels, where no manner of detriment can ensue, and so go out by siege; nor did ever any thing happen upon the drinking of these waters, that could afford any the least ground of jealousie, that there was any such cause, notwithstanding his pretences.

Note.

But seeing our Author is so severe in

A digreſsion about petrification.

in his charge againſt it, as having a *petrifying* property, and thereupon compares it to the *Dropping-well*, I judge it requiſite to make ſome enquiry into the parallel, and to conſider of the cauſes of *petrification* that is in waters, and more particularly that of the *Dropping-well*, how it makes ſtone, and ſo we ſhall the better diſcern what ſutableneſs there is in this his parallel; where by the way, ſomewhat I ſhall ſay concerning the *nature of ſtone*.

Of the nature of ſtone.

It is a point of no ſmall difficulty that I am now fallen upon, there being few that have written of the ſubject unto any competent ſatisfaction. *Fallopius* (*de metallis cap.* 6 found it ſo, and therefore he implored the help of *Martus Antonius Janna* about it: But at laſt he adventures upon it, and defines *Stone to be a mineral ſubſtance concrete, that is not capable of diſſolution either by heat or moiſture*: And whereas ſome ſtones will diſſolve or melt, he imputes to the mixture of ſome mineral or mettal. —— But this is not a full or compleat definition, for as much

much as we see there are some stones, in which we cannot say there is any mineral or mettal, that will neither endure the *fire*, nor yet the *air*, and are therefore accounted improper for building.

But this is observable, that the more pure and fine the matter of any stone is, the harder it is, and the more uncapable of dissolution either by heat or moisture, as *Diamonds*, *Amethists*, *Cornelians*, &c. Nor does it agree with the nature of those stones that are bred in the bodies of men, some of which we find are dissoluble by the help of these waters, though others are not.

Of the generation of stones.

But the cause of the generation of stones is still more abstruse and difficult. Some will have them all to be originally nothing but water, but then they should all be pellucid and clear. Some to be only earth condensed, but then none of them should be pellucid. Besides, why should any of them be heavier then earth, since they are drier; for we see the same piece of earth when 'tis dry, is far lighter then

when 'tis moist, unless we shall attribute it to its more close and compact substance, which is not enough.

The best account we can give, is that every sort of stone has its *Succus Lapidescens* (as mettals have) before it be concrete, and that concretion is furthered sometimes by *cold*, and sometimes by *heat*. Thus by *cold*, those Springs that have imbibed any sort of Lapidescent juyce, may petrifie or make a stone of the same kind, and the sooner if there be any mixture of a *fixed salt* in it, and the water be kept from motion. But the other (to wit) *heat*, may any crasse matter be turned into a stone; as the clay in a Potters furnace, is by the fiery heat condensed into a stone.

Stones often found in the body.

There are also stones generated in the concave parts of mens bodies very frequently, by the immoderate heat of the parts condensing crasse matter, as in the Gall, the Reins, the Bladder, the Stomach, the Womb, as have been found in dissections frequently; so likewise in the very Arteries and Veins. *Kircher* tells, that he was present

lint when *Joannes Trulla* a Chirurgeon found many stones, and much tartarous matter in the *great Artery*, near to its union with *Vena Cava*, in one *Bartholinus Conventinus*, which stopped the motion of the blood and spirits, and brought sudden death. The like was found lately in the Artery of a *Noble Peer* of this Realm, which rendred his disease incurable, as I had a relation from my Friend Dr. *Trontbeck*, who was present at the dissection. Many stories of like sort may be found in *Schenkin's Observations*, as also in *Laurentius's Historia Anatomica*. Yea and sometimes stones have been found in the *solid and musculous parts*. I have seen a stone as hard as a flint, and in all respects like one, as one flint can be like another, that after much pain in the part and of long duration, was cut out of a mans buttock at *Doncaster*, which would strike fire upon steel.

I read in good Authors of several Springs that are impregnated with stone, as the *Aqua Aponitana* which *Fallopius* says has Limestone, as also

Springs that have imbibed stones.

the Baths of *Engesta* according to *Gesner*, and that at *Corsena* has shreds of Marble. So at *Giret* near *Vienna* in *Savoy* there is a Spring whose water petrifies into flints. This must necessarily proceed from the diversity of the Lapidescent juyces which those Springs have imbibed.

A rare Spring in *France*.

But the most stupendious is a Spring at *Clarmont* in *Averne*, a Province in *France*, which though it flows as limpid and clear as any other water, yet it turns all its substance into a stone, if it be suffered to stand still in any vessel; and being put into a glass of what shape you please, it will turn presently into a stone of the same form. *Petrus Joannes Faber* a French Physitian, in his *Hydrographum Spagyricum* (*lib.* 2. *c.* 14.) reports of this water that they are wont to make Bridges of it to pass into their Gardens, over the Rivulet that comes from it, by placing timber, and then pumping up the water upon it, they have a compleat stone-bridge in 24. hours. This water he says kills any beast that drinks of it, for as much as it turns into a stone in the stomach——

The

The ſaid Author undertakes to give a reaſon for it, (to wit) *That the* Spiritus Mundi *with a peculiar influence of the Stars upon this Spring more then any other, does excite the aſtringent and coagulating property that is in the Sal, one of the three Chymical principles, whereby the water upon reſting, or ceaſing of motion, ſhall convert into a ſtone.* But in my judgement, he had as good have ſaid nothing, for ſo he may eaſily ſolve all the *Phænomena* in Nature, be they never ſo difficult, which have puzled all the *Sages* of the World, by attributing them to the activity of the *Spiritus Mundi*, and the Stars influences upon one or more of their three principles, to wit, *Sal*, *Sulphur*, and *Mercury*.

But in all probability, the true cauſe muſt be this, that this whole matter that runs out of the Spring, is a *Lapideſcent juyce*, and not water, which when it ceaſes to move, as it does in the Spring or Rivulet, immediately it hardens into a ſtone. For motion hinders the concretion, as we ſee in water, which in the coldeſt

weather never frezes while 'tis kept in motion, but let it rest, and then it converts to ice.

And so I may say of our petrifying Springs, which only differ in *magis* and *minus*, several of which I have seen in this County of *York*, which do cover a stick, straw, or mos with a stony crust, and these of several colours, according to the nature and colour of that sort of *Lapidescent juyce*, which the water hath imbibed.

Of the Dropping-Well.

But the most famous of them all, and most petrifying by far of any that this Kingdom affords, is the *Dropping-Well* at *Knaresbrough*; it is a Spring that bubbles out of the Earth in a Meadow Close, near adjoyning to the River of *Nid*, that runs under the Walls of the Town, belonging to Sir *Thomas Slingsby*: It is as clear as any other Spring-water, and the Cattle drink of it. After thirty or forty yards from the Spring, it runs by a very small channel into a spungy porous Rock, about twelve yards long, which hangs upon the edge of another stony Rock, (all the earth thereabouts being

ing

ing rocky) there it diffuſes it ſelf, and continually diſtils through the pores of the ſpungy Rock, like a plentiful rain, into the ground that is under it, much lower then the Meadow. That ground into which it drops, is all become a ſolid Rock, wherein if a ſtick or moſs be ſuffered to lie ſome while, it covers it with a ſtony cruſt, and in time converts it into a ſtone, ſomewhat like *Lime-ſtone*, but clearer and ſmother; from thence it runs into the River of *Nid*, which is within a dozen yards of it, where the Spring-water has made a Rock, that ſtretches ſome yards into the River.

There are no ſymboles of any *petrifying* property in the Spring or Stream that runs from it, upon ſtraws or moſs, till it comes into the Rock; which to my apprehenſion ſeems to be made by the petrification which the water at the beginning might receive from the Rock upon which it hangs, from which it might derive a *Lapideſcent juyce*, and doubtleſs it is now eminently exalted in its coldneſs from the *ſpungy Rock*, for it is a very cold water

which quality meeting with the *Lapidescent juyce*, and a small proportion of a *fixed Salt*, doth produce the petrifying property.

This water is in esteem for staying of *inveterate Fluxes* of the belly, of which they use to drink a long time together without any harm at all; and I have sometimes observed, without any benefit as to the staying of the *Flux*. If it be evaporated away, it leaves in the bottom of the vessel a very sharp and gretty stone-powder, somewhat salt and brackish, for the fire fixes the *Lapidescent juyce*. Our Author calls it *Nitre*, following therein *Kircher*; but I have proved it already to be inconsistent with the nature and property of *Nitre* to make a stone. Nor does that *salt*, which is found in the sediment of the *Dropping-Well*, shoot into *striæ's*, as the *Nitre* does at *Scarbrugh*, and wherever else it has been found.—— Now it being plain, and that by his own confession, that *Scarb. Spaw* has in it abundance of *Nitre*, (*p.* 34.) it is impossible it should be *petrifying*, or make a stone.

And

And since 'tis also manifest, that the *Dropping Well* has *no Nitre* in it, it follows that the parallel is *naught and frivolous.*

To sum up all in a few words: while Doctor *Tonstall* has designed to charge it on the Spaw, that it *breeds* the stone in the kidneys and bladder, he has in truth proved by an instance drawn from himself, tha it is an excellent water against the Stone, forasmuch as when he knew not from any foregoing symptomes, that he had any stones in his kidneys, save only that he had formerly been cut for the Stone, and his private constitution might again incline him to it: It did not only like a light brought into a dark room, discover a lurking Thief, (as I had occasion to express it elsewhere) to wit, a Stone and that within the space of *one fortnight*, but had also so much power and efficacy as to expel it, and also to set nature on work some weeks after, to clear it self of the stones and gravel which it had dislodged, which if they had been retent within the body, would undoubtedly have

A rare case of help in the stone.

have increased to a greater bulk, perhaps in a little more time impossible to be expelled, and so have drawn him into a necessity of another cutting.

I have been the longer in this Argument, both because in this he seems herein to be most earnest, often protesting in choler enough, on purpose to gain Proselytes and beget belief (though I think there are but few to be found, that will judge the overflowing of his Gall, to add any force to his Argument) and because some others even of *eminent Quality* of my Friends, whom I *very much* honour, had some such jealousie, upon this very ground, that they never discovered that they had the symptomes of the Stone, till this Water found it out, and expelled both stones and gravel; while yet scarce any of that Family have been free from the Stone, that lived to any competent years: And further, because on this *Hypothesis*, *Hang* all the rest of the Arguments of accusation which he brings against the water.

What need I say any more in point of

of *Reason*, to convince wise men of the ungroundedness of this his charge; I shall add a little more in point of *experience*, that I have lately met with very many intelligent Persons, who having had large experience of the benefit by this water in the Stone, either in themselves or their relations, have read this his charge with some indignation, and have willingly offered their testimony. I'le mention but two for brevity.

Mr. *John Beaumont* of *Flankesse* in *York-shire*, his Wife had been very many years subject to *grievous fits of the Stone*, for which she had taken much advice, though with little success; she went afterwards to *Knaresbrough* and drank those waters, but found no benefit; then her Husband brought her to *Scarb.* which water brought away the matter of Stone in Gravel and Sand to a great proportion, even in *one week's* time, since when (being now five years) she has had no necessity of returning to the Spaw, being free of all symptomes. —— Himself also very much subject to *Hy-* Another

pochon-

pochondriack Wind, which much disturbed his head with strange fantasies; finds perfect cure by these waters, having frequented them now these twelve years, and so resolves to continue, while God spares life, being aged sixty and five.

Another special Case.

The other is the Experience of Mr. *George Waugh* of *Newcastle*, a neighbor of Dr. *Tunstals*, expressed in his letter to me.

Sir, *I judge my self obliged to give my testimony of the Spaw, and its good effects in my case. And first, I bless God that he has afforded me so great help by it; and also I let you know, that it proved effectual almost beyond my first belief of the water, even to my admiration. In the year 1669. at my first visiting of the Well, the water did not onely bring away a confirmed stone, as large as any Date-stone, with its bed in which it lay, but as I found did also soften and dissolve what was more in my Body. so that at one Urine* (as I remember) *I voided above a dozen stones, most of them as Large as a white pease, which did lie in the bason as stones; but I draining the water off, and thinking to take*

them

them up, they would not bear their own weight, but betwixt my fingers became sand, and these I voided the very day I left the Spaw. At my return in 1670. I had not drunk eight pints of the water the first morning, until a large quantity of the tartarous tough matter that breeds the stone came away, which I know was caused by the vertue of the Water.

I am your, &c.

GEORGE WAUGH.

Here I think fit to insert a story that I have heard from a Gentleman of Quality who asserts the truth of it. A Gentleman that was sorely afflicted with the Stone of the Bladder, was cut for it, and a stone of great bigness was taken out, his Friend begged it of him, and made a knife-haft of it; as he was sitting at dinner one day with other Friends, they held long in discourse, while his knife laid still upon his trencher, which when he took up, he found the haft to have a dimple in it on one side, and observing, he judged

judged it to have proceeded from a Radish upon which the hart had laid, which had dissolved it: this gave occasion to another Gentleman, who was wont to be severely tormented with the Stone, to eat Radishes much, which he found to dissolve the Stone in his Bladder, and bring it away in abundance of Gravel and Sand, so as he was afterwards freed from his disease.

Note. But I must look back to (*p.* 15.) where our Author tells a story of Mr. *Stone's* Son, (its the Printers mistake, for it should be Mr. *Stow* a Gentleman of *Newton upon Trent* in *Nottinghamshire* how that the Spaw at *Knaresb.* helped towards the healing of his wound in the neck of the Bladder, after he had been cut for the Stone, for which great cure (sayes our Author) he did frequent that Spaw many yeares after.—— He go on with the story, this Gentlemen and his Son having heard of the fame of *Scurl. Spaw*, did about eight or nine years ago make a journey thither, in which water they found so much more real benefit in

that

that diſeaſe of the Stone then they had before, that to this day they never returned to *Knaresb.* but have been conſtant drinkers of *Scarb.* waters, either going thither, or elſe ſending for the water to *Newton*, though it be near thirty miles further diſtant then the other.

Another ſtory he tells (*p.* 35.) of one that was brought very low in a *Hectick Feaver*, and ſadly troubled with a ſhortneſs of breath, but found no Remedy till drinking of *Knaresb. Spaw* he coughed up ſtones every day. If this Patient (ſayes he) had been ſent to *Scarbrough*, what had become of him? —— I dare ſay he knows not, for it well appears he does not underſtand that water, either through defect of opportunities of obſervation, or from a judgement ſwayed aſide by deſign, or blinded by intereſt. But it is not my diſpoſition now to make a compariſon betwixt theſe two waters: Let them agree till they meet ſay I, and then if they fall out, I know which is the *nimbler*, and *better mettal'd* too. But our Author ſhould have done well

to

to have informed himself what intention the Doctor designed, that in a difficulty of breathing he should advise him to drink that water, and whether he knew there were any stones in his Lungs, and could expect that the water should help their expectoration, or whether it was not rather some accidental cure that he expected now. He should also have told us what manifest quality there is in that water to promote the coughing up of stones, more then there is in *Scarbrough*, and whether it was expected to be performed by some occult quality: And whether or no a mistaken fantasie in Dr. *T.* will hereafter prove a real impediment in *Scarb. Spaw* for the doing of cures.

Of clay and sand in the Spaw.

But I may not pretermit that *he accuses this water to have sand and clay in it, whereby it hurts feeble stomachs, and he undertakes* (p. 23.) *to tell what proportion there is of it in the water.*—— This has been in part answered already, while we were discoursing about the *stony particles*, wherein he placed the *petrifying* property. We have said before,

that

that the fire does condense some fixed parts of the mineral and metalline substances, or the Earth through which it passes, yet exceeding short of that proportion that he mentions; nor indeed is it worth enquiry, since never any harm came by it, be it more or less, these thirty years to my knowledge, that might be reasonably ascribed to any such cause. But let us examine it first in Reason, and then we will come to Experience.

All sorts of water have earthy matter.

This is certain, that the most pure simple water in all the world, being torrified in the fire, as we do in extracting the minerals out of this water, will be found to have sand and other earthy matter in it, as Mr. *Boyle* has made out: for he says, take the purest and most common Spring-water, and distil it in the purest *glass retort* an hundred times over, and there shall every time be found a quantity of sand as a bottom sediment. But this is more especially true in Mineral waters, and still more in such of them as have imbibed Mineral-juyces, whether they be hot or cold Springs, & never till now did any

Especially Mineral-waters.

man of Art esteem them the worse for it: Such as that at *Bourbon* in *France*, the minerals whereof have been shewn me by the Noble *Lord Falconberge*, and yet by the Advice of all the Physitians that water is taken inwardly; as also our own at *Bathe*. So the *Acque Acetose* at *Rome*, the *Pouhons* and *Nouveaux* in *Germany*, *Epsam*, *Tunbridge*, *Barnet*, *Astrop*, *Lythum*, yea and that of *Knaresh* upon my own knowledge, which upon the evaporation of the water, (as I do at *Scarb.*) yields a great proportion of clay and sand (as he calls it) and scarce any thing else. Yea Dr. *French* in his Book of that water confesses it.

Note. He refer him to a Chymist, who will tell him this is common to other Springs of this sort. *Petrus Johannes Faber* in his *Hydrogr. Spagyr.* (*lib. 1. cap. 4. pag. 16.*) treating of Mineral-water, and wherein consists their virtues, has these words. —— *Nam distillatis aquis quacunque Arte ex nonnullis Fontibus infinitarum qualitatum, nihil repertum est in fundo distillatorio, praterquam Limus, & Terra quædam crassa*

crassa & fæculenta nullius virtutis & efficaciæ, &c. (to wit) by what Art soever the Waters of some springs be distilled, which are yet of infinite vertue, nothing is found in the bottom but mud, and some gross and earthy dregs of no vertue, and efficacy at all. And thus I am certain it is with *Knaresb.* which this year he extols so much, and which either our Author has not observed, or out of design is not willing to acknowledge.

And therefore either he did not know this when he writ this Book, or he did. If he had not known it, then it betokens *Ignorance* in a considerable point of Philosophy, and in that part wherein he ought especially to have been better instructed. —— If he did know it, and yet goes about to baz it into the heads of the vulgar as a peculiar fault of *Scarborough*, it savours still worse; he might as well accuse any of them as this: nay upon this *Hypothesis*, no water in the world should be wholsome to be drunk, because of the *sand or gravel* that is in it, which *fire* discovers. Although for any

man to repine at it, were doubtless an Atheistical presumption, and a grievous sin against *God*, who has so ordered in his infinite wisedom, while either its not worse for our bodies, or if it be, it depends upon his Will, who not only in his Statute and Decree has determined us all to be subject to death, but also in his wise provision of things most necessary for our being, will gradually dispose our bodies to a state of mutation and corruptibility.

No element of water to be found.

What could our Author expect (I wonder) to find the element of water? Surely no: all Fountains are mixed bodies made up of the four elements, and in respect of the earth which is the *matrix* within which they are generated, and to which they are so nearly united, they partake largely of a terrestrial matter.

Scarb. Spaw excellent for a feeble stomach.

I do seriously profess, I could never observe any the least harm to feeble Stomachs, but have always found it highly to sharpen the *appetite*, and also further the *concoction*. Nay I am certain there is not in Nature a more speedy Remedy for a debilitated Stomach.

much. Never did any feeble Stomach (if that was the main fault) return from theſe waters without eminent good ſucceſs, when they were regular and would be adviſed. My *Lord of Suffolk*'s ſtupendious cure which I mention (*p.* 174. of *Scark. Sp. Edit.* 2.) confirms this, with others that are there recited. Nor if you mind, does he bring any inſtance to confirm this charge, but as in the former indictment about its breeding the Stone, he has no witneſs but himſelf, nor one plauſible argument to prove it; ſo here he ſtands alone to make good this accuſation againſt that cloud of witneſſes which I have produced, although I am certainly informed from ſome that know full well, he did earneſtly endeavor to procure ſome to atteſt them both, but was ſeverely rejected.

I have known ſome Perſons of quality, who when they came, could not ſit down at the Ordinaries with others, leſt they ſhould give offence by their *carminal belching*, which always ſeiſed on them at meat, who found a perfect

cure by the waters, and some additional helps which I thought fit. I may confidently say, I have known many scores that through debility of the retentive faculty of the Stomach, were wont to *puke* up their meat before it was half concocted, that have found cures, even when all other means have failed, and when they have been supposed to be far in *consumptions*.

A rare cure.

Major *Samuel Taylor* a Gentleman well known to our *Superiors*, and the *highest Grandees* of the Kingdom, by a Commission he has from his *Majesty* for the making of the Mould at *Tanger*, was about nineteen years ago so low brought with a lingring weakness, attended with a *constant Cough*, and loss of appetite, that his legs could scarce bear him, and was wholly given up by all as in a *Consumption*, found here a perfect cure in a very short time. The two or three last years finding at *Tanger* the old symptomes returning, which brought him so weak that he could not attend his employment but on horseback, he obtained leave to come for *England* purposely to drink these waters

waters at *Scarbrough*, wherein by the way (especially at *London*) he met with sufficient discouragements from many (otherwise knowing) persons, fearing the waters would kill him, grounding their jealousies upon this Book of *D. Tunstal*, but his former experience had fixed his resolution, so as the last Summer (*viz.* 1678.) he came to *Scarb.* and staid about three weeks, then after a few weeks respit and recess he came again, and staid nine or ten days at the waters, and was reduced (God be praised) to his perfect health, strength and stomach, as ever he had in all his life.

An appeal.

I appeal to all the Lords, Ladies, Gentlemen, and others that were ever advised by me at these waters at *Scarbrough*, for I cannot justifie the drinking of them abroad, when perhaps it may be adulterated by the Carriers, or else become putrid, whether they have not found their stomachs advanced by it, both in point of appetite and digestion. Our Landlords tables at *Scarb.* finde we want not stomacks, where we feed like *Farmers*, and are

heartily merry, yea and he himself in the two Summers that he visited the waters, knows it to be true.

Its very usual for many to come in various cases on their own accords, and so drink largely and boldly without any advice first had, or direction in drinking, and they think all is well because the water passes freely with them, if such return without success or get harm, where is the fault? Possibly our Author may have met with some of these, which he could not redress, though perhaps another might: must it needs be charged upon the water or its principles?

Several Indictments against *Scr. Sp.* answered.

He is indeed very forward in his Accusation, and in this very point he confesses (*p.* 21) he preferred an Indictment against the Water before the *Lord Falconberge* about the *sandy feces*, while yet *he acknowledges he was not certain, but that much of it came by the carelessness of the Porter that brought him the water.* —— I could reply to the purpose if I were disposed, but I know my limits. Sure I am that *noble Lord* is so well knowing, and throughly satisfied

tisfied with the *innocency* and *excellency* of this water, that no man can impose upon him, nor will his Lordship own any thing that tends to its disparagement.

But there is yet another fault which he fancies to ensue from the *sand* and *dirt* that he has told of, and the *stone facies*, (to wit) that *they are plastered upon the inner coat of the bowels, disturb the peristaltick motion, and obstruct the attraction of the lacteal veins.* —— Hard words indeed, enough to fright children, but they that are wise will not be startled at Bugbears. *Posito uno absurdo mille sequuntur*; the cause and the effect are much alike. The truth is, 'tis nothing more then a frivolous conceit, and not worthy to be replied to.

But this effect of the sand becomes a cause of still further mischief, (to wit) that *after you have drunk a month with success, it takes a testy jadish fit, and will neither go backward nor forward,* (p. 25.) and sayes he, (p. 26.) *Is this the manner of other waters?* —— Yes, I can tell him, that *Knaresb.* water will

Scarbr. compared with *Knaresb.*

will not go through at any time in ordinary bodies; unless it be either drawn or driven; and shall I say it is from the sandy sediment which I found upon evaporation? Surely no, but for want of another thing which he calls the *essence of a Span*, which should carry it through. But I am not quarrelsome against that water. He had told his friends the last year when he invited them to come to *Scarbr.* that it was a nimble and well working water; and if he could have brought about his design, it would so have continued this year.

Compared with the German.

I am certain no water in the world that I read of, is less guilty of this fault then *Scarb.* may let them find me another that will pass a month together with like success. I am certain the *German* come far short of it, for as Dr. *Heer* confesses in his *Spadacrene*, (p. 122.) they have scarce one stool in eight days that drink of it, even such as were wont to retrograde once every day at home. But if after so well working there happen to be any obstruction, must the fault needs be in the

the water? Is it not possible that Nature may be weary after a month, and so become a *slug*? Or may it not arise from some accidental thing in the Patient? Do we not see freequently that the same dose of Diet-drink which we prescribe, comes sometimes far short of what it operates at another day, and if so, where is the alteration but in the body?

Its very ordinary for accidents to happen at all these waters, and therefore there is need of Physitians that understand them, and know how to correct them, although as rarely at *Scarb.* as at any other in the world. As for the *Lord* he mentions, in whom it stopt after a months well working, I know whom he means; that *Lord* told me he could never get quit of him, till at length he yielded to take something of him; and I profess seriously, his *Lordship* told me, he found no manner of alteration: So I gave him somewhat to take off the waters, and he returned home with benefit, having come above two hundered miles.

Accidents at all waters.

The

The truth is, its againſt my will for any one to drink this water a whole month together, but rather I adviſe to a little intermiſſion, and then go to it again, if the work be not done.

Dr. T. wreſts the Authors ſenſe.

But he ſeems to confirm this aſſertion from my own expreſſions in my Book, as you may ſee in his twenty ſixth page—— Thus where I am laying down cautions about orderly and regular drinking, that no man hurt himſelf through want of a Rule, he converts them to arguments againſt the water, as is obſervable throughout his whole diſcourſe. Do not all Authors that treat of ſuch ſubjects, lay down rules and give cautions for orderly drinking of the waters they treat of? As Dr. *Heers* and others of the *German*, Dr. *Dean* and Dr. *French* of *Knaresbrough*, Dr. *Rooſy* of *Tunbridge*, *&c.* and muſt all theſe be wreſted to a contrary ſenſe, as that they imply ſome faults in their waters; certainly nothing can be more diſingenious. Sure I am none of theſe ever met with ſuch contradiction, and wreſting of their

their ſenſe as I have done. But I allow every man his humour, though it coſts me ſome Trouble, provided the end may be good, as here it will. ——— I now proceed.

Of the Eſſence of Spaws.

He ſayes in his Preface, *that the Eſſence of Scarb. Spaw is fit for the Cup of a Prince, but the* Caput Mortuum, *which is that he calls the Stonefillings, Clay and Sand, is for nothing but the Brick-Layers Trowel.* —— Tis well there is any any thing in it that is good. —— Now by the *Eſſence* he means the refined parts (to wit) the Mineral Salts, which are extracted by force of Fire. But I wonder why the groſſer or fixed parts ſhould be excluded from being *Eſſential* to the Water, any more then the Body, which is of a groſſer ſubſtance then the Soul, ſhould be excluded from being the *Eſſential* part of a Man.

Scarb. compared with Knaresb.

If the Salt be the only *Eſſence*, then it will follow that *Knaresb.* Water which *this year* he magnifies ſo much, has little or *no Eſſence*, for in the Evaporation of 10. Gallons, I had a great quantity of *Clay and Sand*, as I ſaid

said before, and but 17. Grains of Salt 3. pints of *Scarb. Water* affording as much: So the consequent must be that there is nothing in *Knaresb.* Spaw fit for a Prince, since it has little or nothing of Essence.

The the Volatile Spirits.

But the truth is, there is yet another thing that is *Essential* to all these sorts of Waters, and that is their *Volatile parts* which being *Aetherial* do easily vanish by the innate heat of Fountaines even without Fire, and canot be catched by any Project of Art, and their consists much of their Virtue, although their purging property lyes mainly in their Salts. and much of their Deoppilating too: And if it were not for this *Knaresb. Spaw* were not worth a Rush, while yet we know it wants not Virtue, although it rarely passes by Siege, only by Urine, which so much whey would do, or common Water, although not with that Benefit. And hence it is as I am certainly informed from some that know it full well, that he himself sends for *Scarb.* Water to *Newcastle*, out of which he extracts that which he

he calls the *Essence*, and gives it with *Knaresh*. Water (even at *Knaresbrough*) as a great Secret, which other Physicians there must not know, on purpose to further its Operation.

But as for those gross Parts which after Evaporation will not pass the Filter, and are common to all Mineral Waters (as I said before), they are for the most part nothing else then the Fixed parts of these Mineralls or Metalls which the fire condenses, though in our Bodies they are not Discoverable, and are of singular use for the making of the Waters more safe for inward Uses and ends, conducing to the fortifying of the Natural parts. For if the piercing Salts were in the Water alone, they would open the Obstructions of the Liver and Mesentery very well, but then they would go nere to spoil the Tone of the Liver, by purging and attenuating too much, but having the Virtue of the gross and fixed parts, there is joyned an Astriction, by which the Natural Parts are strengthened, and the Tone of the Liver preserved, besides that it secures

Scarb. Fortifies the Liver, &c.

secures the Body from running into fluxes; And from hence also comes it, that though it be an aperient Water, yet it stayes the immoderate Fluxes of women.

And this that I say is according to the Doctrine of *Galen*, who (*lib. de Curand. Morb. Cap. De Hep. affect.*) advises that in all *Hepatick* Medicines, some things be added which are *Moderately* Attringent, otherwise Aperient, Piercing and Purging Medicines will undoubtedly debilitate it. And to this agree all our best Writers, and we finde it true in our Practise.

Another charge about the Jaundice.

Another grand Indictment that he prefers against *Scarb. Spaw* is, that it is *Obstructive and causes the Jaundice, for proof whereof he cites the Lord E's. Case,* (*p.* 37.) This is the Case I glance at, (*p.* 149) of *Scarb. Spaw Edit* 2.) in dark Language having no mind to have it publiquely known whom I meant. *Dr. T.* asked me again and again with very much importunity one day last year at *Scar.* in great Friendship, at least pretended, whose Case it was; If I was prevailed withall by al-

soothing

soothing words to tell him privately, being a Brother of the Facultie, &c. He did unworthily to tell it to the World, so as to charge it as a Fault in a Person of such Honour in hurting himself with drinking wine. Ἴδε ἔκτυστα ποιεῖ τὰ ἄξια κρυπτέσθαι, καὶ ἃ αὐτῷ μονὸν ἐπιζητοῦντι ὡς ἀπόῤῥητα ἐπέτρεψα, ἀρ' οὖν τοῦτο ἰατρικῶς ἢ μικροπρεπῶς γινόμενον; What pump me, and then tell abroad my *secret*? the very School-boys will blame him for this, and are better taught, *Nec retinent patulæ commissa, &c.* This is not done like a Physitian, but—— This brings to my mind a story in *Plutarch (de Curiositate)* of an *Egyptian* that was carrying something in a Basket covered. One came to him, and asked what it was that he had covered so close. *Ideo (inquit) obvolutum est. Tu verò cur curiose vestigas quod occultatum est? Si nihil esset mali non fuisset occultatum:* (to wit) It is therefore hid that thou mayst not curiously enquire what it is. Had there been no evil in it, it should not have been hid. I must confess, this frets me more then all his Book beside. Ile

only add one word of Advice to every ingenious Reader upon this occasion, which I have out of *Publius Syrus*, viz. *Ita Amicum habeas posse ut fieri hunc Inimicum putes.* —— So treat your Friend, as if you should suspect he might in time become an Enemy.

He says *the water brought his Lordship into the jaundice that killed him*, p. 37. I do seriously profess my Lord was in a decaying condition by a Consumption, and also sick when he came to *Scarb.* and more fit for his Bed then a Journey of sixty miles. His Lordship drank but three quarts in a whole week, and that altogether against my will and advice, and that at twice, (to wit) three pints at a time, and with two days intermission betwixt his two doses, both which passed throughly. What wine was drunk in his Lordships company at *Scarb.* or in his return by *York*, where he stayed two days, is impertinent either for Dr. I. or me to mention; But sure I am, neither the water nor the wine did him any great harm, so as to have any influence into his death. Nor had he

any

any *Jaundice* but a *Cachexy*, which he brought with him, neither does D. *Taylor* (whom he mentions) blame the water in the least, against whose perfusion his *Lordship* undertook that long journey, and after ten or twelve days died of sickness.

His second instance is of an *Alderman* of *Newcastle*, (p. 40) *yet he confesses the Jaundice did not manifest it self either by urine or the colour of his body, which gave him cause* (he says) *to suspect that the water had petrified the Gall.*—— But I pray how came he to know it was the *Jaundice*, since it appeared not in the colour of the body nor the urine? If *Galen's* authority be of any value or credit with him, he will tell him by his definition of *Icterus*, that it is an inseparable difference whereby that disease must be known, that the choler is diffused through the whole body in the skin. *Icterus est effusio bilis in cutem.* So *Aetius*; *Est effusio biliosi humoris circum corpus, ob secernentis eum Facultatis debilitatem.* And to these agree all the Princes in Physick, as *Aretaeus*, *Paulus*, *Celsus*, *Actuarius*, &c.

Of the Alderman of *Newcastle*.

as the Learned may see in their Writings. Yea and all our *modern Writers* too make it a *necessary Adjunct*, without which no man can call it a *Jaundice*, if it appear not in the skin. Yea if he will consider *Hippocrates* or *Galen* either, *which are his two great Lights*, (as he tells us) they will let him see the *Jaundice* is not to be judged without it do appear in the skin. *Helmont* has indeed a large dispute (*cap. 41. de Hum. Except.*) from whence the effusion of the choler proceeds, but yet all along he denominates the *Jaundice* from its appearance in a yellow colour through the whole body in the skin. And therefore I wonder our Author did not consult better for his own Reputation in describing this Disease like an *Artist*, especially engaging in such a design as this, wherein he could not think to escape unsifted, either by my self or some other.

Dr. T. his new way of demonstration.

——— *Which gave me cause to suspect* (says he) *that the water had petrified the gall.* ——— I must confess I can find out no ground for this his *suspition* that the gall was petrified, nor will any

wise

man think it a sufficient proof. he told us of the signs of it, in probability they must have been of same size with those of the *Jaun-*. The *Jaundice* he fancied, and is all the sign we have of it; but ce it appeared not, *it gave him und of suspition*, &c. I will leave it ny man of reason to judge of, and pecially to those of our facultie.

The *Alderman* I well remember ed at *Scarh*, about sixteen days, and water passed well with him, yet hat space his *gall is suspected to be ified*. —— Why! this is as speedy petrification as that which was made himself in his kidneys, and far icker then that which is made by *Dropping-well*, and its to be su- ected to gratifie him further in his louſie, 'twill become as speedy as at of the Spring at *Clarmont*, and so that time a draught of this water t down, it will turn into a stone in e stomach. But I wonder all this ile that he does not name the *Alder-*, being his Neighbor and Patient, d so have gained it under his hand,

which doubtless would have added greater force and authority to his attestation.

But to give a true account of this case, I shall relate what I have from the Alderman himself though he is not willing to be named. *He writes to me, that he was advised by Dr.* Tonstal *to go to* Scarb. *telling him it was good for his gentish distemper, with which he had been grievously afflicted, the waters operating very well during his stay. About a month after his return home, he was afflicted with an indigestion and purging which confined him to his chamber. But stools being of a white colour, this Dr. T. said was a symptome of the Jaundice, and another Physitian prescribed him some Chalybeate drinks which did him good, to which Dr. T. added some drops which he called the Essence of Steel, and blamed the petrifying waters of* Scarb. *For it, though the worthy Alderman says it was but his bare assertion, neither was he perswaded that his infirmity did deserve that denomination, having never had any the least symptome of that disease, nor can he say that the water was the cause of*

that

that *Malady*. —— But I pray what ground is here for him to say the Gall was petrified, or that it was Jaundice, or that the Water drunk a moneth before was in fault. It seems rather to have been a *Flux* ariling from the debility and indigestion of the stomach, then any thing else, and so well he cured, though he did not know what.

Of the Merchants wife.

His third instance to prove the Spaw to breed the *Jaundis* is of like force and Authority with those precedent: it is of a *Merchants wife* with childe, who after some few dayes drinking of this water at *Scarbrough*, and within *dayes after she gate home was taken with a paine in her Right side* (p. 41) *Phlebotomy was thrice ordered, then an Antimonial vomit, yet* (sayes he) *so obdurated was the Gall by the Petrifying property of* Scarb. Water, *as I suspected, that none other signe appeared of the Jaundice, but a return of her pain three or four times over. at length a ternary Spirit of Wine, Niter and Mercury Elixerated dissolved the congealed Choler, and then did the disease shine forth in it Saffron*

Colour; after three recidivations she was pluckt out of the jawes of death, beyond the hopes of all her Friends.

Let us now examine the Case of this Patient as it's here laid down by *Dr. T.* Who because he is so severely bent from this disease to deduce an Argument against the *Spaw*, I shall take the more liberty to consider of it, and do not at all doubt to evince, that this Argument is as weak as those that preceeded, and altogether groundless; Yea that he laboured under a grievous mistake in reference both to his *Diagnosticks* about this disease, and also *the cure.*

℞ It is a *Woman with Child*, and as I am certainly informed from them that know, betwixt five and six Moneths gone. The disease is the *Obduration of the Gall*, the Cause whereof is the *Petrifying Property of the Spaw*: the Evidence or Proof —— *as he suspected* —— To this was joyned the Jaundice, this proved by a return of pain in her Right side three or four times over. The Remedies were Phlebotomy unto 36 ounces, as I am ascertained

tained by them that made Observation, then an Antimonial vomit, and lastly a Mountebank Medicine of *fifty hot Spirits of Wine*. Niter and Mercury Elixerated does the fear, and the Saffron Colour appeares in the Skin.

I pray what proof is here of the *Obduration of the Gall* more then what we had in the *Aldermans* Case, (to wit) his *Suspicion*, which is a new way of demonstration, which I do wonder he would offer now the second time to publike view. And what have we to prove the *Jaundice*? Why, nothing but his *Jealousie*——a return of pain in the side three or four times over ——I wonder where he learned, or ever read of this to be a *Signe* of the *Jandice*; I dare say neither out of *Hippocrates* nor *Helmount* his two great Lights, no nor out of any solid Author. Of the Obduration of the Gall & Jaundice.

As to the means he used for the Cure of this Patient (to wit) to take blood in one so *far gone with Childe, three times over, unto* 36. *Ounces* besides the *Vomit*; I'le not joyn with the Women

men in Cenſuring him: The Caſe might be extraordinary, and then *Extremis Morbis Extrema Remedia*. Yet this I ſhall ſay, a Phyſician had need be upon a very ſure ground, that in ſuch a Critical caſe as this was, ſhall go in an extraordinary method, —— But I muſt confeſs I cannot but laugh at his *Medicine*. The Diſeaſe was a violent Fever with an Acute pain in a part, and here is a violent, hot Medicine, which muſt needs inflame the part more, and increaſe both the Fever and its Symptomes, and ſo bring on Relapſes. Beſides that *Niter* in the Spaw is ſuſpected to have *petrifyed* the Gall, and *Congealed* the Choler, and here *Niter* is fancyed to be the *diſſolvent*. I am ſorry I am forced to point at theſe things, but I cannot avoid it, ſince they lye in my way. —— But really it is ſuch a Hodgpotch of Art, as I never met with before.

Dr. T. under a groſs miſtake.

I am afraid my Friend will ſuffer more from his Brethren in the Faculty about this Diſeaſe, and its Signe, Symptomes and Cure expreſſed, than he did by the Women about ſo often

bleeding

bleeding and *vomiting* this Gentlewoman. The truth is, I had good grounds of Jealousie by his Description of the Case, that he was mistaken in the disease, and therefore I writ to a Friend at *Newcastle*, that had opportunities of Observation, enquiring if there were not joyned to the rest of Symptomes mentioned by him, a *Bilious Vomiting* and a *Singultus*: The return I had was that they were both joyned. This did ascertin me that the disease was an *Inflamation of the Liver*, which had beguiled him all the while; and no marvel shee relapsed so often since the Remedies were so hot. Had he consulted *Hippocrates*, he would have cancelled him to another Method, namely cooling and opening Medicine. So *Galen*, *Paulus*, *Celsus*.

But it may be he will say, he does not approve of the old Method, but uses *hot things in Fevers*.——It appeares so indeed; In the mean time that Patient is to be pitied that must be so treated. I have had occasion to speak to this point in my Answer to *Hydrol. Chim.* (p. 135.) and therefore I'le

I'le say no more now, since there is little danger of any young Students to become Proselytes to our Author, that shall observe either his discription of Diseases, or the Succes of his Medicines.

But the Truth of the story is this: It was taken at the first for a *Pleurisie*, and so was managed for twenty dayes, till the method proving altogether ineffectual, Other Physicians were called into Consultation, who modestly confess they looked upon the disease as desperate, little Room being left for Action; and do threfore blame *Dr. T.* for chalenging to himself the honour of this Cure, which was due to God alone, who beyond all hopes, and in defect of due meanes, does oftentimes grant a *Signal Recovery*.

Nor is there any the least ground to think that either the Gall was obdurated; or the Choler congealed; but even the diffusion of the Choler into the Skin does still more plainly evince, that it was no other then the *Phlegmon* or *Inflammation of the Liver*, which happening in the Declination

clination or latter end of the Fever afforded a good Judication, and that the Fever would soon terminate.

Now because it shall appear that I offer nothing of my own private opinion in this particular; I will produce the Testimony of some of our *Principal* Writers in Physick, to prove that Symptomes here reckoned up as concurring in this Patient, do most certainly denote the *Inflamation of the Liver*, and no other disease. And if a Physician mistake the disease, he must undoubtedly fail of the Cure, or hazard the Patient with frequent Relapses. And in this I refer to the Judgment of all the Learned Brethren of our Faculty.

Of the inflammation of the Liver.

Aretæus (*lib. 2. de re med. Cap. 4. Morbo Regio.*) Expresses it thus. *Si* [*Morbus Regius*] *cum febre & biliosis ejectionibus fiat, & gravitas sit circa dextrum præcordium, inflammatio fervens judicatur ipsius Hepatis, ob quam bilescens Sanguis per totum Corpus fertur.* To which Ile add that of *Cornelius Celsus* (*lib. 2. de re med. cap. 7.*) *Frequent Singultus & præter consuetudinem*

continuus

continuus, jecur inflammatum esse suspicatur; and a little after, ——*Si Hepar inflammatum est, dolor in communibus adest in dextro Hypochondrio, transiens sursum ad Clavicu'am* (this I guess made our Author think it to be a Pleurisie.) *Deorsum ad spurias usque Costas, febris acuta, tusses siccæ, sitis, cibi inappetentia, spirandi difficultas, & alvus Suppressa est.* And *Aetius* reckoning up the signes of the Inflammation of the Liver, mentions these—— *Febris acuta inæqualis, spirandi difficultas, tussiculæ parvæ ut plurimum siccæ, vomitiones biliosæ, Costæ ut plurimum condolescant, Corporis Color Subvertitur, & in Arquati speciem permutatur, singultus quoque consequuntur.* ——From hence nothing can more plainly appear, then that this disease was in truth the *Inflammation of the Liver*; The yellow colour of the skin being one signe among the rest, coming in the close of the fever, and consequently it was not the effect of the *Spaw*, but of the *Phlegmon* of the Part,

And as he mistook in his *Diagnosticks* or judging of the disease, so I must in

in kindness to him and his Business for the future, (if he will accept it so) let him know, that he was out of his *Therapeuticks* or the Remedies, that *ternary Spirit of Wine, Niter.* &c. Being as improper as any thing he could have pitcht upon, which who so uses in like case, must expect nothing less then a long disease, as this proved to be, and frequent Relapses, to the extream hazard of the Patients life. *Ad calidam Hepatis intemperiem utendum esset perfrigerantibus, & corroborantibus Viscus moderate, &c. A Vino in totum Ægri abstineant, ni ob aliam Causam nempe stomachi debilitatem utantur, & tunc tenue & parum aqua ferens aquosum ipsis detur.* So sayes *Paulus Aegineta* (*de re med. c. 46. de hep. affect*) Here a cooling diet is prescribed, and Wine *wholy* forbiden, and much more Spirit of Wine.

Thus I have sifted these three Cases, which he brings in to prove that this water caused the *Jaundice*, or *petrifyed the Gal*, and have found them all very weak, and not to have been bottomed on *Reason* or *Verity*.

The Spaw cures the Jaundice.

If I were disposed and it were needful to bring instances of Experience in this point, I could multiply *Cures of the Jaundice* by this water. I shall content my self with two for brevity sake. *Sir John Legard's* Lady of *Gunton* within a few miles of *Scarb.* had a *Jaundice* that long resisted Remedies in a Rational Method, and was perfectly cured by the Spaw in a few dayes, being thereto recommended by another Lady, who had Experienced a Cure in the same Disease: and this consented to by *Dr. Arnold* his Physician, who knew it to be a Rational advice.

Mr. William Hodgson Minister of *Scarbrough* was for the space of six yeares, ever and anon falling into the *Jaundice*, especially Spring and Fall; nay, one time it continued upon him almost all the year, notwithstanding his Endeavours after a Cure: Since he was setled at *Scarb.* which is now about four years, he has found a perfect Cure by the Spaw.

But seeing our Author is so extreamly severe, as that he has so far stretched

stretched to prove this water to be *obstructive*, I judge it very pertinent here to tell a story, which to him is *Argumentum ad hominem*.

In anno 1668. Dr. *Tinstal* came to me at *Scarb.* pretending his only business was to take my advice about his Wife, whose belly never fell after a Child that she had born; nor could he with all his Art take it down, notwithstanding he had used much means about it, as he told me. *If* (said he) *you can advise to any method that may suit, or you think the Spaw may conduce thereto, for you understand it better then I who am a stranger to it, then I will send for her, else I'le return forthwith.* —— To be short, after some queries which I made, being resolved —— I advised him to send for her, not doubting of cure; so he did, and within one week she came by sea from *Newcastle*. Then he brought her to me, with whom I had some conference, while we took three or four turns upon the sands. I advised her Husband to give her some preparatives, and something else with the water to further the in-

A rare cure of Dr. T's Wife.

tentions. After a few days her bodies did lace close, that could not meet within three or four inches before. She continued to drink a month, and returned perfectly well, and so continues to this day, free from all swelling, it being near three years since. But we have not a *syllable* of this in his Book.

He is unthankful.

Now this water that could open the *Lacteæ*, and small veins of the mesentery, which was the means of this cure, how can it be thought to be an *obstructive* water; and to breed the *Jaundice*? I leave it to the judgement of wise and impartial men, nay to himself to pause on, the cure being sufficiently known at *Newcastle*. Certainly it's an ill requital which he here makes to the *Spaw* for that *excellent* Cure, and he is extreamly disingenious.

Nothing is more ordinary then to see (at these waters) those that are corpulent, taken down in their bellies more or less, even sometimes a *span*, when they are willing to follow advice, that some few other medicines may

may be joyned to further the intention, which could not possibly be done if it were *obstructive*. Nor is there a better thing in nature for taking away the reliques of all inveterate Agues, which sufficiently makes it out to be aperitive. It cures Agues.

It is found in dayly experience to be very beneficial against the *Scurvy*, refining the Blood, strengthening the natural parts, and correcting all the symptomes of it, which fully evinces it to be of a *deoppilative* or *opening* vertue: Besides the *purging* property which all along he acknowledges, is directly contrary to the *obstructive*. So the Scurvy.

An aged Gentleman Mr. *Christopher Adams* of *Camelsford* in *York-shire*, seventy three years old, well known to our Author himself, in vexation against these *frivolous cavils* of his, offers me this his testimony, which he accounts himself obliged in justice to give. *viz.* That for six years together he was miserably tormented with pain in his legs, feebleness in his knees, frequent faintings, and a dry itch over all his skin. He had advised

with several Physitians, who had ordered him *Diet-drinks*, *Diaphoreticks*, *Oyntments*, &c. but without any success at all. He came at length to *Scarb.* and upon drinking of that water found perfect ease in all these said symptomes. He had also been sore afflicted with dizziness in his head, and loss of memory; his understanding also was sometimes so clouded, that he could not discern the quarters of Heaven, or know the *East* from the *West*, and sometimes was wont to fall. By the use of the *Spaw* he recovered out of all the said symptomes, and never had any fits since considerable; for prevention whereof he has continued his annual visits at *Scarbrough* these seven years, though he lives at forty miles distance.

Dr T. is censured by the Women.

But I may not pass it over that our Author tells us he fell under the obloquy and censure of the women for his severity to the *Merchant's Wife* we mentioned even now, which puts him to his vindication, (*p.* 42.) where he bids them *take notice that it is his principle when he sees his duty, to pursue it to the*

the hazzard of his credit, &c. —— I do indeed take him to be an honeſt man, and a faithful Phyſitian, and here to clear up all ſcruple, we have it now the ſecond time under his own hand; For (*p.* 14.) *he had told his Friends, he gave no worſe counſel to them then he took himſelf, and wiſhes that all Phyſitians were bound with his girdle —— and here he will hazzard his credit in the doing of his duty* —— What can a man ſay more to make out his integrity? though honeſty tends little to the curing of diſeaſes, but that its neceſſary a Phyſitian endeavour after other accompliſhments, that he may underſtand aright both the nature of Diſeaſes, leſt he miſtake one for another, and alſo the matter of Phyſick that he may apply ſutable remedies: Yet it is ſo valuable a qualification, that all perſons that are ingenious, know how precious a thing a good name is, when they ſee it ſo eminently appear, ſhould forbear to be cenſorious, eſpecially when they are not able to diſcern but that he may be in the right, otherwiſe it is the greateſt diſcourage-

ment that a Physitian can fall under.

He taxes his Brethren.

Had our Author desisted here he had been much more innocent, but having justified himself he condemns his Brethren of the Faculty. *And though* (says he) *I be singular in this point from the most of my Brethren, whose wisdom it is to secure themselves from an evil report, by doing nothing in a doubtful case, yet I have not so learned Christ.*

How sutes this with Reason or Religion, when he is blaming the Women for their rash censuring of him, that with the same breath he should censure others? while he tells us he is singular in this point from the most of his Brethren, does it not savour too much like that of the Pharisee, I am not like this Publican? what mans wisdom can suffice to secure himself from an evil report, when some mens pens or tongues are so lavish as we finde them? doubtless he that has learned *Christ* aright, will take care to manifest it in love and charity towards others, and Charity judges the best, and censures no man.

Again

Again in such doubtfull Cases its ever the safest for a Physician to call in for the Advice and help of his Brethren, and not to hazard the precious life of any person in making dubious and private Experiments. And what hopes can a Patient have from a consultation of Physicians, when they are not in Charity one with another?

In this his severe Censure, I would hope he does not fix it upon his Brethren at a distance, whose practise he knowes not: And as for those that are neer about him, I know several of them so well, that I must needs say, I think there is not any cause, why they should be excluded from having an equal Magnanimity with himself in this point.

But there is one thing I may not overlook (pp. 38.) he tels us *he was present at Physick-Lecture in London, where the Professour discoursing of the Jaundice, brought forth three or four Stones that had been bred in the Gall, which he had caused a Gentlewoman to void (by stool) with a sharp Dose of wor-*

king Phisick. —— I am afraid our Author was mistaken in the Professors Discourse; for what passage is there from the Gall to the Guts to convey Stones, and how could he think by any Dose of Phisick to excite Nature to expel them out of the Gall? I suspect the *Ductus Cholidochus* will not afford sufficient passage for Stones, (which sometimes I have seen to be very large, and in the form of a race of Ginger) no more then the small veines of the Mesentery will admit of Sand or Gravel to pass into the Kidneys, to become the matter of stones there.

Of the Gowt. (P. 43. *He accuses it to be ill for the Gout, and cites his own Case, that it made him go limping a Fortnight after.* ——But I suspect he takes *Non Causam pro Causa*, but in this as in every thing else, he makes himself both Plaintiffe, and Witness, and Judge. This is so much contrary to the property of it as Water, which is a good Preservative against the Gowt, and as such a water, that is impregnated with those Mineral Principles in which we are agreed, that it deserves no fur-

ther

ther Reply. ——Besides the Experience my self, who have had some gentle fits of the Gowt, and several others who have ever found it a good Preventative, even when there has been some inclination to it by cooling the Mass of Blood, and correcting and purging the Acrimonious Humours; only I ever joyn some other thing to further the intention.

(P. 44.) *He sayes no Spaw in the World has less need of Preparatives, and more need of Purges then this, and that he never observed that any at the first morning Draught wanted a speedy passage by the back doore.* ——Herein I declare his Observation to come short, for though it ordinarily it failes not to pass through at the first, yet some Constitutions there are especially especially such as are Melancholick, and others whose Bodies ore wont to be Constipated, especially women in whom it will scarce find passage in a day or two, in such there is an absolute Necessity of Preparatives. The water is indeed nimble and sometimes

The Spaw needs preparatives,

has

has wrought ten dayes together, while yet it has but made a furrow through the Guts, and has left all the Excrementitious humours behind it, the party finding therein no benefit at all, when with a Cathartick I used, he voided Cherry-stones, whereas for those ten dayes he had eaten no Cherries. Besides, although we could be assured that it would pass freely, yet as for those that come with any Chronical Disease of which they expect to finde a Cure, there is a necessity both to prepare the body, and also to furnish the Patient with other Concomitant Medicines to be used with the waters, suitable to the Malady and the Patients Constitution, otherwise notwithstanding the dayly working of the water, they may return as they came.

Nor is it possible for me to lay down Rules to suit every Case, though I should run out into a Volume; those depend upon daily Observation, and frequent converse with the Patient, on which account I have been usually there every Summer these twenty years and upwards, and so may probably

bably continue at the due season while God spares me life and Health. In the mean time I must take leave to refer the kind Reader to what I have said more at large upon this point of direction in the use of the Spaw in my Book called *Scarbrough Spaw, Edit.* 2.

Now the eminent purging property which here he confesses to be in the Water, doth make it much more safe in those very cases wherein he has charged it to be faulty, then other waters of this kind, which pass not by siege, bu only *work by Urine*, (as they expresse it) which Wine, Whey, or any other kind of liquor will do. The inconsistency of his Assertions.

First, in regard of the *Stone*: Hereby are the gross and slimy Humours that lie on this side the Kidneys in a good measure cast out by the Bowels, and the Patient is secured from an *Ischuria* or total stopping of Urine, which has too frequently happened at other waters that ever pass by Urine: The slimy matter being carried by the sole Diuretick property of those waters upon the narrow passages of 1.

Urine, and thereupon has ensued a total stopping, to the speedy ruine of the Patient; whereas (God be praised) such a case never happened at *Scarlrough*.

2. Secondly, hereby not only the gross Excrementitious Humours, but also the *Stone-filings* (if I should grant any such thing to be in the Water) must be carryed down the broad way by the Bowels, and so cannot possibly be thrown upon the narrow passages, to become the Material cause of a stone in the Body.

3. Thirdly, this *purging* property does quite Overthrow what before he had asserted concerning the waters *Obstructive* property, for 'tis impossible that the same thing should be so eminently *Purgative* and also *Obstructive* to cause the Jaundice.

4. Fourthly, that Property which he charges on it, as that it causes the *Gout*, cannot possibly consist with this that here he asserts concerning the *speedy Purging*, especially while we consider what he acknowledged in p. 25. to wit, that it purges well a moneth together, and what further he will tell us p. 62. that

that it may endanger a *Dissentery*: For purging is owned by all, and prescribed as a special Remedy against the Gout, either to prevent or to Cure it. *Dysentery*.

And therefore seeing he had projected to fix so *severe* a Charge upon the Spaw, I wonder he did not take care so to draw it up, as that one piece might not interfer with and confute another.

(Pag. 45. He would pretend to deny *Vitriol* and *Iron* to be in the Spaw; so did Mr. *S.* and at length recanted, and so will he perhaps in time. But both these I have sufficiently proved in my Book of *Stear, Spaw*, and have enlarged upon them both in my Answer to *Hydrol. Chim.* and have further made it out from the Testimony of good Authors that have treated on such Subjects, and more particularly of the Chimical Writers, that the *Acidity, Inky smell*, and *black Tincture from Gall* are certain and undeniable Arguments to prove *Vitriol*. I will not trouble the Reader with a repetion of what there I have said, but do refer him to my Book. Nay further Of Vitiral and Iron.

then within these two years our Author himself was abundantly convinced of the presence of them both.

I deny not but *Nitre* may contribute some Acidity to Water, (*as he sayes p.* 59) though I exclude the *Spirit of Nitre* as extraneous to our Subject. As for his experiment which he propounds to paralel the smell of *Scar. Spaw*, concerning which (he sayes) *he will forfeit his Nose, if it do not stink worse then the Alome-pans at Whitby*; I wonder to find him so zealous in this Point, to fix a stinking smell upon that water, when there are so many thousands to confute him, I am perswaded not a Countey in *England* but it affords many that are able to contradict him in this. And therefore, though hence it may appear he has lost his Smell, yet I should be heartily sory, that for so small a mistake my friend should forfeit his Nose.

The very truth is, it has a perfect *Vitrioline* smell, which no man will deny, save those that prosecute a designe of contradiction, which being once engaged in, they are not willing

to

to give over, notwithwanding all grounds of Conviction that can be imagined, and with which most wise and Learned men of our Nation have been fully satisfied.

And whereas *he tells* (*p.* 54.) *of a Water at Hunwick near which Iron-Stone is digged, that receives a Tincture with Gall, as highly as Soar-Spaw,* (though its mention makes nothing to his purpose.) Why may not that have the Vitriol of Iron in it, especially seeing the Iron stone is so nigh. However *& quæ non prosunt singular junctæ juvant,* since all these Properties (to wit,) its *Acidity, Vitrioline smell,* and *Tinging Black with* Gall are all met together, it makes an undeniable Argument that here is *Vitriol*.

I do seriously profess, that when in *Anno* 1668. *Dr. T.* came first to *Scarb.* he owned both the *Vitriol* and the *Iron* beside the rest, having conviction from the reasons which I gave him, and fell into admiration to see so many excellent Minerals meet in that place, which gave me occasion to mention it in my Answer to *Hydrol. Chim.* (*p.* 107.) with

Dr. T. has changed his minde.

with more sincere respect to him then now he deserves, since he has so shamelesly changed his minde. But he that on such slender grounds can affirm at this rate, as we have found in this his Book, may as easily deny what he will. That which was *Vitriol* last year is this year become *Nitre*. —— Well! I have proved *Vitriol* to be in it by such Arguments as Learned men have contented themselves withal in the like Cases, and by an Induction of the inseparable properties of *Vitriol*, which I discern in the water, and that at large in former Books, yet because I would do somewhat more for this my Friends Conviction, I shall *Superabundanti* cast him in one Author more, and he a *Chymist* too; it is *Petrus Faber* in his *Hydrog. Spagy.* lib. 1. cap. 9. p. 39.) where treating of Springs that have imbibed *Sulpher*, *Vitriol*, &c. *Nigrescit* (saves he) *hujus Fontium liquor, si galla in pulverem redacta in ipsum fontis liquorem projiciantur, quæ vitriolum verum ac certum testatur*, to wit, The waters of these Fountaines turn black if the powder

Fabers Testimony.

of

of Galls be put into it, and that is as true and undoubted Testimony that there is *Vitriol* in it.

So again (*lib.* 2. *c.* 11 *p.* 164. The same Author telling of two Springs at *Vaule Comte*, in the Countey of *Averne* in *France*, the one called *La Fountain du Cornet*, the other *La Fountain du Rocker*, he sayes, they are both of one Notur, and have a *Vitriol* in them, which he proves by two Arguments that we have been mentioning, (*vid.*) their *Taste*, and their *black Tinctur* with Gall.——*Habent secum vitriolum dissolutum, ut ex gustu ~~ipsam equum in atramentum: quæ signa vera sunt &~~ legitima admixti Vitrioli*, which are sayes he, the true and legitimate signes of *Vitriol*. Besides the admirable virtue which he reports to be in those Springs, for opening the Obstuctions of the Liver, Spleen and Messentery, and for the purging of viscous humours, (eminently true in this of ours of *Scarb.*) at the length he adds ——*Nullus fere morbus dari potest, quin hisce aquis curari possit* ——You can scarce name any disease

Rocher

ut ex gustu ipso apparet — et ipsis aquis gallæ appositæ convertunt ipsam aquam in atramentum, quæ signa vera sunt et ——

(sayes he) which may not be cured with these waters.

Now why we should forfeit our reason, and Spurn at the solid Judgment of Learned Writers in all Ages and parts of the World, who have thus contented themselves to speak concerning this thing, and *submittere fasces* to the Magisterial Dictates and Resolutions of some self-conceited Opinionists, I see no ground for it. And though I cannot say with *Faber* that this *Spaw* cures all diseases, Yet I am certain it is far more innocent then his Springs, which he confesses do provoke vomit, and sometimes purg unto blood; on which account he mixes ordinary Spring water with them to correct the Acrimony of the *Vitriol*. And this I shall further say, that no Spring in *Europe* hitherto discovered, may be further improved for the Cure of Rebellious diseases then this, as may appear by the particulars I have mentioned in my Book on the *Spaw*, as also these I have now expressed on this occasion: Nor I think can the wit of man invent a better Composition, then by

by Divine Providence is here adapted for the good of mankind.

(Page 54.) *He says no Vitriol but that which is Ferruginum will take a tincture from Gall.* ——— I would fain know then how it comes to pass that *white Vitriol* will make Ink, is this *ferruginem*, or made out of Iron? surely no, yet I am sure it will make Ink. Will he fall out with the Author of *Hydrol. Chymica*, who (p. .) makes *Vitriol of Iron*, and *white Vitriol* really to differ? ——— However he makes this an argument to exclude both *Vitriol* and *Iron* out of the number of the Mineral Principles, owning nothing but *Nitre* and the *Glebe of Alome*, both which I have sufficiently proved in my former books, to the full satisfaction (I hope) of every impartial Reader.

He says (p. 49.) *that he saw a piece of Alome-stone which the Chymical Apothecary took out of the Earth near the Spaw, which with Gall gave a black tincture to spring-water.* ——— I am afraid the Apothecary was too nimble for the Doctor, and took that Stone out of the *Vitrioline* Bed, which I mention (*p.*

44.) of my Answer, which indeed will Tincture because it is impregnated with *Vitriol* (as also with the Earth in that Bed, from whence he may as well infer, that all sorts of Earth will with Gall give a Tincture to Water) whereas the many hundred loads of Alome-Stone, or Earth, that is there besides will give no tincture, excepting in one other place within a few yards of the Spaw, where I found another Bed of *Vitriol* last year. But of this I have said enough in that Book.

He contents himself with proving Knaresb. Spaw to be Vitrioline (p. 57.) *by the yellow colour wherewith the Basin and Spout of that Spring are tinctured, which he calls* Crocus Martis; *and the like* (he sayes) *may be observed in every Runner near the head of any Vitrioline or Chalybeate Spring.* —— I now appeal to his own eyes, whether it be not so at *Scarbrough?* —— But whether this be a good Argument to prove *Vitriol* is matters not much, Learned Writers mentioning no such sign of *Vitriol* but rather that it denotes *Iron*. However if it be at all convincing, as to him

him it is, then *a fortiori* it makes eminently for *Scarbrough*, because it has a deeper dye than that at *Knaresbr.* having also the substance of that which he calls *Crocus Martis*, not to be found in the other.

But while he is debating upon these two Minerals of *Vitriol* and *Iron*, and the Tincture which the Water takes with Gall, he makes himself merry with me, *while he fancies to have gotten me into a Pinfold*, (p. 54.) Why may not I be merry too since I have found the way out? I wonder where my good Brother learned the Art of making a *Pinfold*. I have read of two famous *Pinfolds*, one at *Wakefield*, where sometimes dwelt a very stout and sturdy Pinder, of whom we have an antient merry song in *York shire*. Another was made at *Gotam*, where the wise men of that Town did put themselves to a great charge and trouble to impound the Cuckow, which quickly overtopt the *Pinfold*, and left the Builders in a maze to bewail their folly. From which of these he derives his Craft, I know not: But the former

Of the Pinfold.

The Authors Antagonist Mr. *S.* lives at *Wakefield*,

could not hold me, I am very well delivered with my bones whole. And the latter I doubt not to creep through or overtop, unless it be made with more Art then yet I can discover in the framing.

(Page 54.) He is discoursing about the *Earth*, which I mention *p.* 14. that falling from the Cliff near the *Spaw*, is converted into an *Iron-stone*, and is fusible in the fire. —— This he is not pleased withal, but declares his opinion of it, which I must confess I cannot make good sense, unless the Reader help me, *To me* (sayes he) *it doth appear to be a reddish Earth dissolved with the Nitro-luminous Salt, and petrified in the Sun and Air to a hard lump.* —— Here is *Earth dissolved with Salt*, and *petrified!* What shall I say? *Si non vult intelligi debet negligi.*

Dr. *T.* is magisterial.

But I return. *P.* 49. he determines Magisterially. —— *I say 'tis only the Alome-stone that gives the Tincture* —— *Let Experience prove it. Take Alome-Stone unburnt, powder it, add Spring-water sharpened with Spirit of Nitre, that it may dissolve it* —— *put Gall to it, and*

it

it gives you the same Tincture.—— Alas! This with much more that I have met with in this piece is borrowed from my *Antagonist*, to whom I gave Answer fully and at large, nor does he wield the Club much better, or has any new gard. I say again what have we to do here with the *Spirit of Nitre* to dissolve the *Alom-stone*? Let him keep to his Sample, in *Scar. Spaw*, there is no *Sprit of Nitre*, nor any *Fire* to Extract it. Indeed *Nitre* there is. and to that let him hold close: But I assure him that neither the *Nitre* that Swears out of the earth neer the well, nor yet our ordinary *Nitre of the Shops* dissolved in water, to which let be joyned *Alome-stone* Crude or Calcined (though we have nothing to do with latter here) or if he pleases joyn *perfect Alome*, made either with Kelp and Urine, or without them; I say these mixt together shall never qualify Water, to take a a black *Tinctur* from Gall it *Vitriol* be away. And this that I say any man shall find to be true, if he put it to Experiment. So that upon the whole matter, my first *Thesis* strands firm, and

unshaken, that it is the *Vitriol* alone, that gives the black Tincture with Gall, and consequently that *Scarb. Spaw* is a *Vitrioline* Spring.

Object. But now comes our Author with his battering Ramme, with which he not only shakes the building, but raises even the Foundation of *Scar. Spaw*, while yet he pretends to be its *great Friend*. (p. 45. *If* (says he) *the Esurine Spirit of Vitriol be joyned with the Volatile Spirit of Nitre in the Water, how does it differ from Aqua Fortis, which is a deadly Corrosive? And if it be said these are not all, there is Alome and Salt also; This makes it worse, even an* Aqua Regia, *which will corrode Gold, and consequently it must be poyson.*

Answ. I answer; Methink he deales with the *Spaw* as *Joab* did with *Abner*, of whom its said, 2 Sam. 3. 27. *That he took him aside to speak with him peaceably, or as a Friend. and then he smote him into the fifth Rib.* Is this a token of his Friendship to make it poysonous? I am glad his Wife lives to confute him. If it will but dissolve a stone in

the

the body, no matter whether it will dissolve Gold or no. I say again what have we to do with the *Spirits of Vitriol and Nitre*, and what aims he to prove by his *First*, *Second*, and *Thirdly*? What though *Vitriol* and *Nitre distilled* together raise a *Corrosive* Spirit? So will Rye-bread Distilled afford an extream *Corrosive* Spirit that will dissolve Metal, if he will trust Master *Boyle* ——— Such alteration does fire make in it, and what though, since the World knowes its wholesome; we are not afraid of those *Spirits* in the water, I am certain they are but Phantasmes, and signifie nothing.

Here we find a Water which many thousand of persons of all ages and both Sexes have liberally drunk of for these fourty years, with excellent success in the Cure of great diseases, when they were well advised, and followed counsel) working without Griping or the least Corrosion, and purging without Superpurgation. In a word many hundreds there are who will give this or a further Testimony,

mony, when occasion shall be offered, and tell the World that all his Reasoning to the contrary is but frivolous.

Another Charge. And this Leads me to the last charge, which is the *Sting in the Tail*, and if it be proved makes it an unpardonable fault, to wit, that *the duplicated Salt may be in danger to corrode the Bowles, and cause a dysentery.*——I am afraid some would have it so. But tis enough that he has said it, for as he has not solidly proved any thing against it, so he does not attempt to do it here, And as he does not, So neither can I. No water in the world is more safe then this in that very point. The Conjunction of *Alome* and *Iron*, two *Astringents*, with the other that are *Attennating* and *Penetrative*, as I have proved to conduce to the better fortifying of the Liver, and other Natural parts, So they contribute to the safegard of the Belly from *Fluxes*, which never happen to them that do drink regularly at the Fountain. Nay I have often known *inveterate dysenteries* and other *Fluxes* cured by it.

Sliveſter

Silveſter Sympſon of Driffield Yorkſh. had a bloody Flux eight years, ſo as he all that Space was forced to riſe to ſtool every night three or four times; It had reſiſted all other means he had attempted. He went to *Scarb.* and was cured perfectly in two or three dayes with the water alone. A rare cure in a Flux.

This I have examined what may ſeem to be material in his Book, only omitting ſome impertinencies, and angry Expreſſions as not worthy to be reflected on. I am of opinion that an angry fit is very wholſom for ſome Conſtitutions, though it may make a man uneaſie to his Company for the preſent, and thoſe that come within his reach: Yet when the Ebullition of Choller is over, it leaves a man in a fat more ~~Sedate~~ temper of mind for a good while after, then before he was wont to be, and more gay and Complacent in his humour to others. If my Friend having given his *Spleen* this vent, be the better for it in his *Cranium*, I ſhould be very glad; as indeed I am informed, he did ſeem to be much pleaſed with what he had done

gedate

done in this Piece, and became more frolick then formerly.

Dr. T. is conceited of so great merit in his Piece

(P. 45.) It appears by the last *Paragraph* of his Book that he had some perswasion that herein he has performed some rare piece of Art, wherein he expects to be applauded by me, for he cites a place out of my Answer to Mr. *S.* p. 2, 8) where my words are, *that if Mr. S. hath any thing to make out in point of Art, I would never go about to Eclipse his Honour and Reputation in it, but would thank him* —— And this our Author adds, that *as I am a man of my word, He expects this much from me.* I answer, I cannot but approve a piece of Art, where ever I find it, and as I shall perform my word to *Mr. S.* who is alone concerned in that promise, so in Justice I shall not deny it to him when I see it. But as for this Piece I see not the least point of Art in it, from the beginning to the end. I refer it to the Learned and impartial Reader to judge betwixt us. Nay I protest seriously were I conscious that these his Pretended discoveries were true, and that there were any

any real ground for this his Carping at this water, (though there be nothing of Art in the making of them out) I would let him ride on with his Honour and thank him to boot. But being assured of his totall mistake, and having so made it out, I must needs let him know, that all his Perswasion of Merit in this Piece is but a *Melancholick Fancy*, and is so far from deserving applause, that sometimes I have thought it needed not, nor deserved an Answere; since there are many hundreds that do but laugh when they read it, being able to confute it from their own Observations and among them some of his own Neighbours and Patients, who have expressed their admiration, what frame he was in when he writ this Book.

Now because there are some that are not able to judge of the force of Arguments, I shall for their sakes add thus much. That as I desire in all things to be found faithful as becomes me, either as a *Physician* or a *Christian*; so in this dispute I aim not so much at *Victory* as *Truth*, which in Conscience

ence and Reputation, (especially being called to it so often by name) I think my self obliged to defend, in the maintenance of the Fame of this most excellent Spring, against the groundless cavils of this Gentleman. Nor do I think that there is a more innocent Water of this kind in the World, at this day discovered, in the very particulars he has charged it withall; in all which cases I declare it in my Observation and Experience to be *most Excellent*. And further that the most tender Constitutions need not dread it, provided it suite their Maladies, for regularly used; it revives both the *Vital* and *Natural* Faculties, and in such I have ever had the most stupendious Cures. Only let not such adventure on it without very good advice, and daily Inspection of some Phisician at hand, in whom they may confide, taking it also at the Fountain.

I shall conclude with a story that I meet with in *Plutarch*; One *Philippides* an excellent Commedian had pleased the King *Lysimachus* very well, in so much as the King asked *Philippides*,

pides, Quid è meis Rebus tibi impertiam, What boon ſhall *I* give thee? He anſwered, *Quidvis O Rex, Modo nequid Arcanorum*, What you pleaſe, only tell me no Secrets.——*I* do ſtill profeſs my ſelf to be a Friend to *Dr. Tunſtal*, and am ready to make it out in any Civil Kindneſs, only (*I* hope) he will not henceforth expect that *I* tell him any Secret.

FINIS.